

Beaded Chain Mail Jewelry

Timeless Techniques
with a Twist

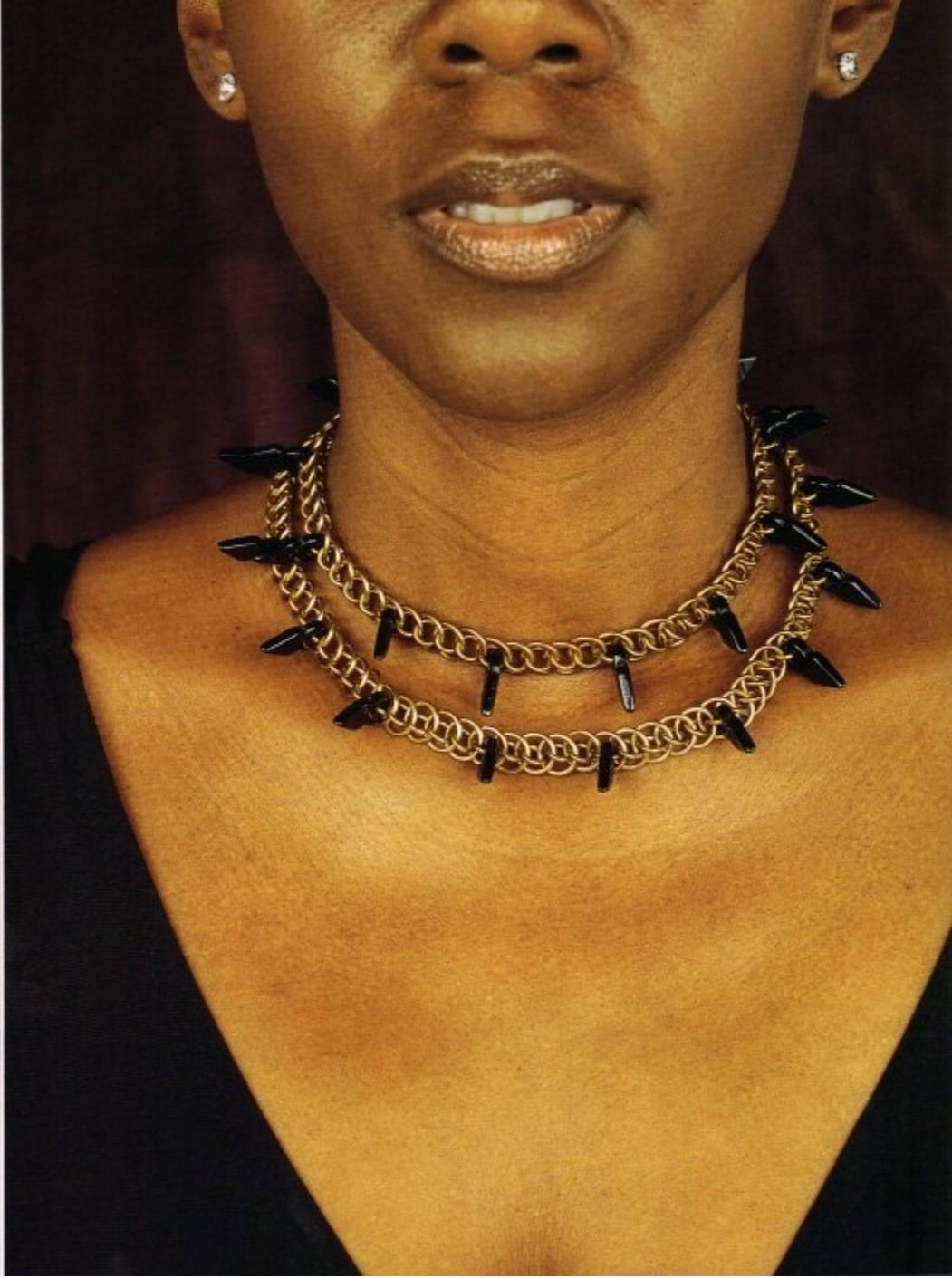


Dylon Whyte

Contents

Introduction	7	Zigzag Bracelet	81
The Basics	8	Shell Spiral Earrings	85
Jump Rings	9	Dancing Bells Anklet	88
Beads	15	Chain Gang	91
Tools	19	Flower Mail Choker & Bracelet	96
Basic Chain Weaves	23	Cable Cross Bracelet & Earrings	102
The Projects	39	Red Carpet Cable Set	106
Early Frost Necklace	40	Grape Leaf Earrings	113
Circle Drop Chandeliers	42	Bronze Age Bolo Tie	116
Beaded Persian Star Necklace	45	Zipper Charms	120
Connection Quartet	48	Andromeda Necklace	125
Gypsy Cuff Earrings	54	Orbital Earring Collection	130
Mermaid's Tail	57	Nautilus Necklace	136
Bejewelled Eyeglass Chain	60	Acknowledgments	142
Moroccan Double Spiral Bracelet	62	Sources for Materials	142
Drops of Jupiter	65	About the Author	142
Centipede Bracelet & Earrings	68	Manufacturers' Gauges	143
Peacock Earrings	73	Index	144
Arrowhead Wrap	76	Jump Ring Suppliers by Project	144
Golden Lady Earrings	78		





Introduction

Hello, my name is Dylan Whyte, and I am a chain mail addict.

After more than 20 years of creating, researching, and teaching about chain mail, I have literally seen more than two million jump rings pass between the jaws of my pliers. I've made just about every type of chain mail project you can imagine, from recreations of medieval clothing that weigh many pounds and contain 100,000 jump rings, to the most delicate earrings containing just a few.

As my knowledge of chain mail and its patterns—both those I've discovered from history and those I've invented on my own—has grown, I've been drawn more and more to designing smaller, more detailed pieces. In particular, I now love creating what I'll share with you in this book: elegant jewelry that combines intricate chain mail with glorious beads.

Whether you're a chain mail enthusiast, a beader discovering jump rings for the first time, or just someone looking for a new horizon in jewelry making, you'll find the techniques here easy to learn and the projects fun to make. The Basics section begins with detailed information about the types and materials of jump rings and beads you'll use, followed by information on the essential tools you'll need—two pairs of pliers—and a few other helpful tools and materials.

I'll next show you how to create eight basic chain weaves you'll be using throughout the book. Some are adaptations of old favorites, such as European 1 in 4 and Byzantine, while others include my original patterns Rings of Saturn and Persian Star. Every weave is accompanied by step-by-step instructions and numerous detailed illustrations to get you up to speed for creating any of the 26 projects that follow.

These projects merge ancient chain patterns going back thousands of years with contemporary styles. Necklaces such as Drops of Jupiter (page 65) and Nautilus (page 136) are as elegant and original as anything you would find in an upscale jewelry store. The adaptable Arrowhead Wrap (page 76) is both traditional and punk. Men are often left behind when it comes to jewelry style, and I've tried to correct that oversight with the classy Bronze Age Bolo Tie (page 116) and the boot, key, and wallet chains that join up in the Chain Gang project (page 91).

Other projects—like the set of bails in the Connection Quartet (page 48) and the multiple Zipper Charms (page 120)—show how you can ring a set of variations on a theme through changing the weave, the materials, or the beads you use. Don't be limited, though, by the variations I've suggested. Throughout the book, look for places where you can make substitutions and adaptations to let your imagination shine. In the mood for something chic? Replacing jump rings with sterling silver ones or beads with pearlescent pebbles might do the trick. Is something more tribal to your taste? In that case, use copper jump rings and wooden or clay beads to create a brand-new funky masterpiece.

The great thing about the time-tested techniques you'll find in this book is this: It doesn't matter how familiar you are with jewelry making, or even if you've never picked up a pair of pliers before in your life. Just read the directions carefully, practice the basic techniques, and you will be making your own chain mail projects in no time at all. Each and every piece here was made with love and a passion for creativity. I hope you enjoy discovering the inner secrets of these jewelry pieces as much as I enjoyed bringing them to life.



The Basics



Chains have been woven into patterns and used both practically and decoratively for thousands of years. It's thought that the Celts were the first to wear expanded chain weaves known as *mail* for armor.

Mail is often called *chain mail*, *chainmaille*, or *maille*; this last term pays homage to the early Old French roots of the word. All these terms are basically redundant, however, as the direct translation of "maille" is "chain"—so using *chain mail* or *chainmaille* is like saying "chain chain" or "mail mail." However, the term "chain mail" is often preferred to avoid confusion with the mail that gets delivered to your house.

All of the jewelry projects in this book contain some form of chain. For the sake of simplicity, I'll refer to all chain and chain weave patterns simply as chains.

You need three things to construct a chain in its most basic form: two pairs of pliers and a supply of jump rings. The following sections discuss pliers and jump rings in depth, as well as a smattering of other tools that can make your chain-creating experience easier. Since the focus of this book is on beaded chains, I'll also discuss the kinds of beads you can use in chain construction.

JUMP RINGS

Jump rings are formed by coiling wire around a mandrel and then cutting the coil along one side to create metal rings. The direction you wrap the coil determines the left or right offset of the jump ring. Jump rings with a right offset are said to be more appropriate for right-handed chain makers. I've found, though, that offset preference is usually determined by whichever offset a chain maker first encounters (figure 1).



FIGURE 1

The two factors that determine the size of a jump ring are the diameter of the mandrel on which the wire was wound, called the *inner diameter* (ID); and the thickness of the wire, known as its *gauge* (figure 2). Both of these factors can be somewhat confusing because some materials spring back slightly when they're cut. The actual ID, therefore, is often slightly larger than the mandrel, meaning that different materials will vary in ID size. Wire gauges can also vary in thickness due to manufacturing differences.

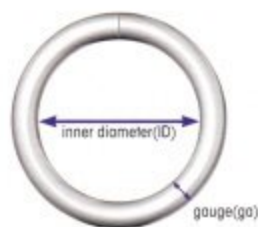


FIGURE 2

I constructed all of the projects in this book from jump rings available from two commercial sources. In each project, I'll give you the individual jump ring sizes required. In the back of the book, I tell you which source provided the rings for each project. If you want to make your own jump rings or purchase pre-made jump rings from other sources, check the gauge chart on page 143. You can also refer to the specific manufacturer's websites for information on their specific sizing methods.

The highest quality jump rings are cut with a *low kerf* saw. The kerf is the width of the groove made by a cutting tool. With jump rings, this is the space between the offset ends of the ring. If this space is too great, the rings can look distorted when closed. Jump rings cut by mechanical means have very rough edges and are generally unsuitable for jewelry-making purposes.

Saw-cut rings, depending on the material and the saw used, can sometimes have burrs. Burrs are usually best removed by tumbling the rings (page 21) either before or after the construction of jewelry pieces. All jewelry-quality jump rings come pre-tumbled.

Jump Ring Materials

Jump rings are made from many different materials. Those most suitable for chain mail jewelry are listed below, but in general, try to avoid less expensive materials. Cheap rings often have nickel plating, which deteriorates rapidly. Mild steel rusts when it touches skin. Galvanized steel, while inexpensive, tarnishes when exposed to skin and forms a scummy patina that can't be cleaned. Also, avoid using "blackened steel" products, as they have a highly unstable finish.

STERLING SILVER

Often called "925 Silver," this material contains 92.5 percent pure silver and, in the highest quality samples, 7.5 percent pure copper. The sterling silver wire used for jump rings comes in several types: *dead soft*, *half hard*, and *spring hard*, all of which refer to how much the material has been "work hardened." In thicker gauges, half hard sterling is perfectly acceptable, but for smaller gauges, spring hard sterling best retains its strength. Regardless of which you choose, use smooth jaw or padded jaw pliers to avoid leaving tool marks on the rings.

Recently, tarnish-free or tarnish-resistant sterling silver has become available. These amalgams replace the 7.5 percent copper with combinations of other rare metals such as germanium. These materials are suitable for chain jewelry; however, they can be hard to obtain and are often more expensive than regular sterling silver.



Sterling silver and copper jump rings



COPPER

Pure copper is the heaviest material used for jump rings. It is an excellent alternative to more expensive materials. Copper comes in several hardness types, but it is always slightly softer than silver, so be careful to avoid tool marks.

Pure copper tarnishes quickly, dulls over time, and takes on a robust and possibly desirable chocolate brown patina when worn regularly. Enamelled copper jump rings are available in a wide range of vivid colors. These rings are almost always manufactured from dead soft copper wire, so handle them carefully both during and after construction. See Keeping It Clean below for ways to protect enamelled surfaces from damage.

KEEPING IT CLEAN

Metals such as sterling silver, copper, bronze, and brass tarnish when exposed to the atmosphere. You can delay tarnishing by storing these metals with commercial anti-tarnish strips or a small chunk of chalk. To clean lightly tarnished metals, soak the pieces for five to ten minutes in pure lemon juice, rinse them in clean water, and pat them dry.

To remove heavier tarnish, lightly scrub the piece with toothpaste and a toothbrush, then rinse it clean. For heavy tarnish, you can usually find material-specific chemical and abrasive tarnish removers.

Be careful not to damage your jump rings by excessive tugging. Also, since you can damage bead and stone materials with certain chemicals, test all cleaning materials before applying them to a finished or valuable piece!

GOLD FILLED

This material offers a relatively inexpensive alternative to real gold. Gold filled wire has a core of sterling silver bonded to a layer of 14-karat gold. To qualify as gold filled, the 14-karat gold must account for 5 percent of the total thickness or volume. These rings are more durable than standard gold-plated rings, making them better suited for chain jewelry.



Gold-filled and brass jump rings

Gold filled jump rings are as hard as sterling silver. Use smooth jaw pliers and treat the metal gently. While much less expensive than pure gold, gold filled is still more expensive than most chain jewelry material.

BRASS

An amalgam of copper and zinc, brass can contain anywhere between 60 to 85 percent copper and 15 to 40 percent zinc. High-zinc brass, often called yellow brass, tends to look very yellow and is only slightly harder than pure copper. High-copper brass—

called *jewelry brass*, *red brass*, or even *Merlin's Gold*—has a reddish gold tone and is much harder than copper and yellow brass. Jewelry brass is the most suitable for chain jewelry, although it does tend to tarnish quickly. Clean it often, as you would silver and copper.



BRIGHT ALUMINUM

This material, derived from common bauxite, is both shiny and durable. Less than half the weight of steel, it makes very light chain jewelry. Bright aluminum offers a pure silver tone. (Even sterling silver can't compare.) Since bright aluminum can tarnish over time, give it a good scrub with regular dish soap. It is an excellent material with which to learn chain construction, as it is inexpensive and easy to work with.

Expect bright aluminum jump rings to be harder and springier than precious metal jump rings. While slightly more resistant to tool marks, these rings can also be harder to close smoothly.

Aluminum is often colored by placing the metal in a dye bath after being anodized, an electrolytic process that helps the surface better absorb the dye. Anodizing can provide a rainbow of colors; however, the anodized surface is fragile—take care not to scratch it. The best anodized jump rings have colored ends. The surface coloring of cheaper anodized jump rings is much less stable.



Bright aluminum jump rings



BRONZE

This material is an amalgam of 98 percent copper and 2 percent tin. Bronze is much harder than copper, jewelry brass, and even bright aluminum. With a spring characteristic similar to stainless steel, bronze is an excellent material when you want copper but need a stronger and lighter chain.

Bronze tarnishes more slowly than pure copper but in a nearly identical manner. Clean it using the same methods as silver and pure copper.

STAINLESS STEEL

This metal—containing various amounts of iron, carbon, nickel, and other components—is the undisputed king of inexpensive chain-making materials. Stainless steel is hard and springy; it often requires a lot of strength and robust pliers to work.

Because of its variable composition, stainless has a slight color variance—anywhere from a dull gray to a bright bluish tone to a slight yellow undertone. Stainless steel rarely exhibits any sort of tarnish. Clean it with dish soap, or simply pop it in the dishwasher.

So-called *surgical stainless steel* is often sold as hypoallergenic, as it contains far less nickel than regular stainless steel. Individuals with nickel allergies should still be careful, though, as only Europe has actual nickel content standards for products labelled hypoallergenic.



Bronze and stainless steel jump rings, with neoprene rubber rings

NEOPRENE

While not available as jump rings, these durable synthetic rubber rings can be purchased in the form of multicolored O-rings that nicely match several sizes of jump rings. Neoprene rings are useful for chain weaves when you want to have a little extra stretch.

A synthetic rubber, neoprene rings are U.V. safe, waterproof, and hypoallergenic.

NIOBIMUM

You can find this rare metal in only a few small sizes of anodized jump rings. It is considered completely hypoallergenic. Anodized niobium tends to be less colorful than anodized aluminum due to its dark gray base color. It is similar in hardness to stainless steel, although you have to handle it carefully to avoid damaging the color.

TITANIUM

Heavier than aluminum but lighter than steel, titanium is another material you can find as anodized jump rings. It is often used for medical implants, as it is hypoallergenic. Compared with niobium and aluminum, the surface of anodized titanium is more resistant to marring; however, you still need to be careful as you work. Titanium can be both the hardest and the most fragile material you work with. It can harden to such an extent that it breaks in half.

Working with jump rings is very straightforward. Simply close the jaws of two pairs of pliers on opposite sides of a jump ring, and twist the ring either open or closed. However, actually placing jump rings into a pattern can be somewhat trickier, especially if the pattern involves placing beads on the rings.

Here are some basic points to remember as you work:

- You want to close the ring as tightly and evenly as possible. The best way to ensure good closures is to hold as much of the jump ring as possible in the pliers so that the pressure you apply is even. You also want to apply a small amount of cross-pressure as you bring the ends of a jump ring together. Some chain makers work the ends of a jump ring past each other with a small click in order to ensure a tight closure.
- Never pull the ends of a jump ring apart to open it; this action pretty much ruins your chances of ever again closing the ring correctly. Always apply a twisting motion to open and close jump rings.
- You want closed jump rings to be as flat as possible. Apply as equal a force as possible with both hands. If you tend to favor one hand over the other, you can end up with slightly distorted rings.
- Do not force rings into place, especially through beads. This can often distort the shape of rings made from softer materials.

- Applying the right amount of grip and force is important to ensure that you do not leave tool marks on the rings. Use smooth jaw or smooth tip pliers—or pliers with a coated tip—to work with soft materials. If you have trouble with tool marks, try using slightly larger pliers, which allow you to apply increased leverage with a lighter grip.
- Never overwork your hands. The process of making chains tends to be highly repetitive. Take a lot of breaks; if your hands are sore, stop for the day. Fatigue can be a real issue, especially when working with the more delicate materials that are easily damaged when you can't apply your full strength to the project at hand.



Jump Ring Illustrations

The projects in this book, and basic weaves described later in this Basics section, are accompanied by many (many!) illustrations. **AN IMPORTANT THING TO KNOW:** The colors in the illustrations are not meant to be the same as the actual rings used in the project. Instead, the colors tell you which are the rings you are working with in that individual step. The jump rings in the illustrations have been color coded as follows:



Red Rings: These are the open jump rings you are adding to the pattern during the project step in question. They always pass through silver rings and may or may not have blue rings on them.



Blue Rings: These are the pre-closed jump rings you are adding to the pattern during the project step. You always add them to red rings.



Silver Rings: These jump rings are part of the existing pattern and are involved in the project step. The red rings you add to the pattern always pass through silver rings. It is often important to note the way red rings pass through silver rings in order to construct the patterns correctly.



Black Rings: These jump rings are part of the existing pattern but are not involved in the project step. They are simply shown for reference purposes.

FIGURE 3



Other additions—such as beads, bells, and clasps—are also illustrated in silver, blue, and black, depending on how they relate to the current project step.

BEADS

Almost since the dawn of mankind, people have used beads of all kinds for adornment and commerce. Glass, bone, resin, shell, metal, stone, ceramic—today there are literally thousands of different kinds of beads available. Not all, however, are suitable for chain weaves.

The most appropriate beads for chain weaves are those with large holes. For a jump ring to fit through a bead, the bead's hole must be large enough to accommodate not only the gauge thickness of the jump ring but also a certain proportion of the jump ring's diameter. For example, you may have trouble fitting a jump ring through a bead that is more than half the jump ring's diameter in thickness, unless the bead has a very large hole (figure 4).

When you hunt for beads, remember these ratios. A lot of beads designed for stringing have holes that are too small for chain weave, so it can often be a great discovery to locate just the right bead for a given project!

Like wires, beads may also have a gauge designation that can vary from manufacturer to manufacturer. These gauges are usually defined in the form of “#/0” on a reverse scale, so that a size 4/0 bead is much larger than a size 12/0 bead.

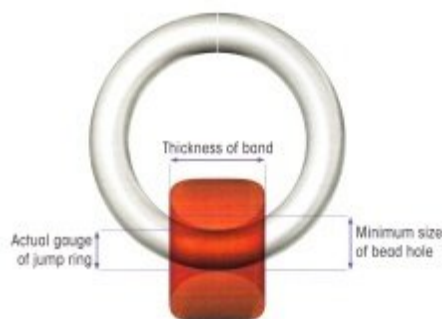


FIGURE 4

The shape of holes can vary widely as well, from round to square to totally irregular. Actually, square-holed beads can work well when threading jump rings through them.

It is important to pay attention to the bead's inner and outer coatings. Some exterior coatings are very fragile and can peel off if the beads are rubbed constantly, as they are in chain patterns. A bead's interior coating or lining can be just as fragile. Beads with metallic linings tend to be somewhat more stable and therefore more suitable for chain weaves.

DON'T GIVE UP

If at first you don't succeed, try again.

This is an apt proverb when it comes to working with jump rings and beads. Bead manufacturing is not an exact science; the average container of beads has quite a variety of sizes, both of beads and bead holes. So you will often find beads in a container that simply won't work for your project. As a general rule of thumb, order

three to four times as many beads as you think you will need for a project.

If you're having a really hard time getting a particular jump ring to fit through a particular batch of beads, try a jump ring with a slightly thinner gauge or slightly larger inner diameter (ID). A bead reamer (page 20) can also be an invaluable asset when it comes to stubborn beads.

Bead Varieties

The following is a list of the different kinds of beads especially well suited to chain weaves.

SEED BEADS

The smallest kind of glass bead, seed beads come in a variety of sizes, from 8/0 to 12/0, and are normally used for bead loom and weaving work, as well as for some embroidery. Most seed beads have rounded edges, but the ones with the most consistent sizing are often Japanese in origin and tend to have square ends.

In general, only the larger seed beads, such as size 8/0, are large enough to fit a jump ring. You may find a size 10/0 bead from a particular manufacturer that is suitable, but this is the exception rather than the rule. Size 12/0 seed beads are usually about 1 mm in diameter, 10/0 seed beads about 2 mm in diameter, and 8/0 seed beads about 3 mm in diameter.

"E" BEADS

Often categorized as size 6/0, these are the second smallest glass beads with rounded edges, next to seed beads. "E" beads come in a wide range of colors, linings, and finishes that, with the exception of more fragile faux metal finishes, are almost always suitable for chain weaves. "E" beads are approximately 4 mm in diameter.



Assorted small beads



PEBBLE BEADS

Following the same basic shape as seed and "E" beads, pebble beads are the next largest glass beads. They are often categorized as sizes 4/0 and 2/0. Pebble beads often come in the same range of colors as "E" beads and are almost always suitable for chain weaves. You'll find these beads most often have square holes. Size 4/0 pebble beads are about 5 mm in diameter, and size 2/0 pebble beads are about 6 mm in diameter.



Pony and crow beads

PONY AND CROW BEADS

The names for these large glass beads are basically interchangeable, although pony beads should have a slightly smaller diameter than crow beads: approximately 7 mm for pony beads and approximately 8 to 9 mm for crow beads. Pony beads are also more likely to have rounded edges, whereas crow beads often have square edges. Both of these beads are very suitable for chain weaves. While they do not have the same broad range of colors as other beads, you can find quite a wide selection when it comes to cheap, plastic pony and crow beads. Use these for less expensive jewelry projects.



"E" beads

ROLLER BEADS

These square-edged glass beads are basically miniature crow beads. They are often suitable for projects that require two sizes of identically colored and shaped beads. Roller beads are almost always 6 mm in diameter and tend to come in slightly more colors than crow beads.



Roller beads

WHITE HEART BEADS

These bi-color glass beads consist of a layer of opaque white glass covered by a layer of transparent glass that is often a true primary or secondary color. The white glass hearts of these beads often accentuate the transparent color to form bright, attractive beads. White hearts are most often found in 5 mm and 8 mm sizes, and both are usually fine to include in chain weaves.



STONE BEADS

Often available in sizes ranging from 1 mm to 10 mm and larger, stone beads usually have holes too small for most chain weaves. You can, however, use larger stone beads and other stone pendant shapes—such as donuts, triangles, and trapezoids—by wrapping them with chains, such as with the Bronze Age Bolo Tie on page 116.



PRECIOUS METAL SEAMLESS BEADS

Bright and attractive, these round sterling silver and gold-filled beads are some of the most consistent beads available to chain makers. Available in sizes from 1 to 8 mm, these beads are almost always perfect for chain weaves. Be careful with the larger sizes (6 to 8 mm), as the holes might be a little too small. Test a few before you buy a large quantity of these often-expensive beads.



DONUT BEADS

While larger beads suitable for chain weaves are often difficult to find, donut beads are the one exception to this rule. Normally measuring anywhere from 10 to 14 mm in diameter, donut beads can be made of glass and so come in a wide range of transparent and opaque colors, including some dazzling color combinations. Donut beads can also be made of stone (see photo). Look for donuts that have a larger-than-normal hole (3 to 4 mm).

LARGE FOCAL BEADS

You can also get large specialty beads from lampworkers (craftspeople who melt and shape glass). In fact, they are often delighted to tackle the challenge of creating custom focal beads. Color and design possibilities are only limited

by your imagination; bead shows are often a wonderful source of inspiration! Be sure to show them the size of the jump ring you want to fit through the bead, and be aware that handmade beads often come with a certain amount of bead release in the hole, which you need to remove before using the bead.

Focal beads



If you have trouble with large holes, consider options for wrapping large custom focal beads. Alternatively, look for a different hole style, such as a glass pendant with a folded loop.



Resin beads



RESIN BEADS

These colorful, seamless, matte-finish beads offer an incredible array of possibilities due to their light weight and numerous shape and size options. Unlike glass beads, resin beads are relatively easy to shape if you require larger holes for a given project.



TALHAKIMT OR TAUNFAULK BEADS

These pressed glass triangular beads resemble arrowheads. A traditional Moorish hair decoration, they are often up to 2 mm in length. You might enjoy finding creative uses for these unusually shaped beads, which have been increasingly difficult to find.



Talhakimt beads

RING BEADS

Usually with outer diameters of 9 mm and inner diameters (IDs) of approximately 4 mm, these circular glass beads are a natural for chain weaves. They basically mimic the size and shape of metal rings. Ring beads are especially useful for Japanese chain patterns.



Ring beads

METAL BARREL BEADS

These relatively large beads, which are often similar in size to pony beads, are used for many purposes and frequently have different names, depending on the manufacturer. Created from plated brass or steel, they are barrel-shaped with very large holes, making them suitable for many chain weaves.



Metal barrel beads



For further information about beads, a good website to visit is www.bead-database.org.

TOOLS

The following sections cover the essential tools—there aren't very many—and the occasionally helpful ones most often used to construct beaded chain jewelry.

Pliers

The most important tools for creating chains are two pairs of pliers. While you can find literally hundreds of different kinds of pliers for making jewelry, very few are suitable for working with jump rings.

If you have a hard material (like standard wire up to 20 gauge) or a soft material (up to 18 gauge), small jewelry pliers are your best bet. Slightly larger pliers—such as 6-inch (15.2 cm) *linesman's pliers*, available from most hardware stores—are suitable for hard material wire up to 18 gauge and soft material wire up to 16 gauge. For larger jump rings, try 7-inch (17.8 cm) *linesman's pliers* or other larger pliers. In general, jump rings with a larger inner diameter (ID) are always easier to open, as you have more leverage with which to open and close the ring.

Despite the name, *chain-nose pliers* are not suitable for working with jump rings. These kinds of pliers are designed specifically for bending wire and making wire loops.

Experiment with different pliers. Some chain makers enjoy pliers with springs or opposed magnets to help open the jaws. Others prefer a grip that helps open and close the pliers easily.

The most important characteristics to look for in chain-work pliers are as follows:

- Look for a good strong pivot that moves easily and doesn't rock. The best pivots are box pivots, as opposed to simple overlaps that tend to work loose quickly when exposed to the repeated stresses of working with jump rings.
- If you find a pair of pliers that align well and have a smooth, tight pivot but somewhat rough jaws, don't worry. Simply smooth the jaws with emery paper.
- Try to find pliers that fit your hands well; nothing can be as frustrating as trying to hold large pliers with small hands or small pliers with large hands.
- Avoid sharp-nose or needle-nose pliers unless you are working with very fine rings or tight patterns. Pliers with a long nose tend to be unwieldy and often have rough jaws.
- Square-tip pliers with a smooth jaw that have a good jaw-to-tip alignment are the best. The more expensive pliers work the best. Remember, you get what you pay for, and you are going to be using these pliers for hours at a time.



Caring for Your Pliers

You can use the following materials to make your pliers work better and last longer.

TOOL DIP

This rubbery substance comes in liquid form in a shallow jar. You dip the tip of your pliers in the jar to form a protective coating that can provide extra grip for small, slippery rings and can help to prevent tool marks on soft jump rings. The coating, however, is somewhat fragile, so you have to reapply it often. Let each application dry fully; this can often take up to 12 hours. Don't confuse this tool dip for the tips of pliers with another kind of dip designed specifically to add grip to tool handles—although that can also be useful when applied to handles.

MOLESKIN

This sticky, felt-like material is often sold in pharmacies to help relieve foot irritation, but you can use it as a durable material to protect the tips of pliers when dealing with softer or anodized jump rings.

EMERY CLOTH

This is a very fine type of sandpaper used to smooth and polish metal. Sometimes used wet, emery cloth can smooth out rough edges and surfaces on tools such as pliers.

GENERAL PURPOSE LUBRICATING OIL

Don't forget to lubricate the pivot of your pliers with general purpose lubricating oil from time to time—just a drop can make a world of difference!



Bead Reamer

Bead reamers are designed to clean and enlarge the holes in glass beads. In general, they consist of a diamond-covered bit and a short handle. Fancier models offer interchangeable diamond bits and can also be used with standard drill bits, depending on the nature of the project. A reamer can be an invaluable tool when you have a bead that won't quite fit a jump ring or that still contains bead release from the manufacturing process, very common with handmade beads and beads from the Third World. ("Bead release" is a material used to coat the tools used in making beads to allow the beads to be removed when done.) Most bead reamer bits are designed to be used wet in order to prevent damage to the bead.

Pipe Cleaners

Pipe cleaners are another useful tool for cleaning bead release from beads. Make sure you get the sturdy ones from a real smoke shop; the ones from craft stores are designed for making crafts, not cleaning pipes!

Tumblers

Tumblers come in two varieties: rotary (slower) and vibrating (faster). They are a wonderful tool for cleaning jump rings and finished chain pieces. Just make sure the beads on any finished pieces you're tumbling have stable surfaces that won't be damaged in the tumbling process! In order to work, all tumblers require some kind of medium for the jump rings or jewelry to be tumbled in. Crushed walnut shells work well for cleaning burrs, while clean, dry white rice is an excellent choice for simply cleaning jewelry. Steel shot is sometimes employed for more specific tumbling purposes.

Do all your jump ring and jewelry tumbling dry, unless your particular tumbling medium calls for a liquid. Never overload your tumbler barrel, as the contents may not get properly tumbled and overloaded tumblers can also put stress on the tumbler. Lapidary supply shops, as well as gun shops that reload ammunition, can both be good sources for tumblers, while pet supply shops often sell crushed walnut shells at competitive prices.

Jump Ring Closing Tools

This tool is often sold in the form of a ring designed to be worn on your non-dominant hand. The ring has either a groove or a raised screw with a groove. Slip a jump ring into the groove while you close it. Reviews of these tools are mixed: some chain makers swear by them, while

others swear at them. If you find that you have trouble holding a pair of pliers in each hand, this tool may be for you.

Tools for Making Your Own Jump Rings

There are several tools and jigs on the market designed to make cutting your own jump rings as easy as possible. With practice, this can be very effective. Just remember that as with all implements, learning to use tools for cutting metal can take a little bit of time. You will almost certainly ruin blades as you learn to cut rings properly, so always order extras!

Polishing Cloths

Look for polishing cloths that are specially designed for polishing jewelry. They work fairly well but often leave a bit of a sticky film on your hands and tend to wear out quickly. They are best used in a pinch, such as when you're at a show and want to put an extra touch of sparkle on your best pieces.



Measuring Tape

You should always keep several flexible measuring tapes on hand for sizing jewelry pieces. This is especially important with thicker chain weaves, which can only be measured correctly when wrapped into a circle. Some weaves can lose as much as $\frac{1}{8}$ -inch (3 mm) when wrapped in a circle. Over the length of a standard bracelet, this can result in as much as an entire missing inch (2.5 cm)!

Medical Tape

Sticky fabric medical tape can be really handy when you first start out making chain because you will develop blisters. Over time, your calluses will become your best friends, but when you're starting out, wrapping blisters with fabric tape is a real lifesaver!

Knitting Stitch Markers, Twist Ties, and Safety Pins

Every now and again, you might find it helpful to mark certain jump rings in a piece. All three of these items make excellent temporary ring markers.

Calipers

These tools are designed to measure the thickness of a material and can be a real boon when trying to decipher the true inner diameter (ID) and/or gauge of a jump ring. They are equally as useful when it comes to identifying bead dimensions. They come in both analog (less precise) and digital (very precise) models.

Modelling Clay and Adhesive Putty

Sometimes it can be difficult to hold jump rings steady as you start a new chain pattern. Modelling clay or adhesive putty can help keep jump rings in place.



BASIC CHAIN WEAVES

The following pages explain how to construct the eight basic chain weaves used in the projects in this book. Several of these weaves, such as the European 1 in 4 and Byzantine, are ancient, while others, such as Persian Star and Rings of Saturn, are modern developments in the age-old art of chain weaving.

The directions in the project will refer you back to this section as needed. A few of the projects incorporate a variation on one of these weaves; for those pieces, you'll find step-by-step instructions on how to create the variation within the project.

Single Cable

This chain weave consists of single rings, or links, joined together in a series. Sometimes the links are twisted, as commonly seen in dog chains, but as long as there have been chains for practical use, this is how they were made. Whether it tethers a ship to its anchor or binds shackles together, it is impossible to find a simpler pattern than this one.

This type of chain also proves the infamous adage that "a chain is only as strong as its weakest link." When you're constructing this pattern from common jump rings, one tug or pull can ruin an entire length of chain; therefore, the Single Cable pattern is best reserved for simple, stress-free, decorative purposes.



You can make the Single Cable pattern from many different sizes of jump rings; for purposes of clarity, the following illustrations represent 16-gauge jump rings with an inner diameter (ID) of $\frac{5}{16}$ inch.

- 1 Open one jump ring and close two jump rings.
- 2 Place and close an open jump ring through two closed jump rings.
- 3 Place and close an open jump ring through both a new closed jump ring and a jump ring from the end of the chain created in step 2 (figure 5).



FIGURE 5

- 4 Repeat step 3 until the pattern reaches the desired length.



DESIGN TIP

When you construct a chain using this method, the chain always has an odd number of jump rings. This ensures that the chain begins and ends with jump rings that sit horizontally, connected by jump rings that sit vertically. Horizontal jump rings in this pattern are always added closed, while vertical jump rings are always added open.

Double Cable

This chain weave improves on the weaknesses of the Single Cable simply by doubling each ring in the chain pattern. This improves the strength and durability of the chain and prevents the pattern from twisting, which can be a problem for some jewelry chain applications.

You can make this pattern from many different sizes of jump rings. For purposes of clarity, the following illustrations represent 16-gauge jump rings with an inner diameter (ID) of $\frac{5}{16}$ inch.

- 1 Open two jump rings and close four jump rings.
- 2 Place and close an open jump ring through four closed jump rings.
- 3 Repeat the previous step, placing and closing a new open jump ring through the same four closed jump rings as step 2 (figure 6).



FIGURE 6

- 4 Place and close an open jump ring through both two new closed jump rings and two jump rings from the end of the pattern created in steps 2 and 3 (figure 7).



FIGURE 7

- 5 Repeat the previous step, placing and closing a new open jump ring through the same four jump rings, as shown in figure 8.



FIGURE 8

- 6 Repeat steps 4 and 5 to continue the pattern to the desired length.



DESIGN TIP

Similar to a Single Cable chain, a Double Cable chain always has an odd number of jump ring pairs. This ensures that the chain both begins and ends with jump ring pairs that sit horizontally, connected by jump ring pairs that sit vertically. Horizontal jump ring pairs in this pattern are always added closed, while vertical jump ring pairs are always added open.

Single Spiral

This weave is also known as a rope chain in the jewelry industry. It is often crafted from variant link shapes, which help keep the chain properly spiraled. When you construct this pattern from standard round jump rings, however, the spiral has a tendency to unwind itself. The most common solution is to construct the pattern as a continuous chain, which prevents unwinding, but be careful not to over-wind a continuous chain because it normally results in twisted chain knots.

You can make this pattern from many different sizes of jump rings. For purposes of clarity, the following illustrations represent 16-gauge jump rings with an inner diameter (ID) of $\frac{5}{16}$ inch.

STARTING THE PATTERN

- 1 Open two jump rings. Close one jump ring.
- 2 Place and close an open ring through a closed ring.
- 3 Arrange the two rings from step 2 so that the jump rings are twisted against each other, as seen in figure 9. This ring arrangement is the base of the Single Spiral pattern and must be kept intact for the pattern to start correctly, especially during the next step.



FIGURE 9



DESIGN TIP

This tutorial illustrates the pattern construction with a clockwise spiral. To create the pattern with a counter-clockwise spiral, simply spiral the chain in the other direction from step 3 onward.

- 4 Place and close a new open ring through the first two rings. Make sure you place this ring so that it follows the spiral of the pattern, as shown in figure 10.



FIGURE 10

CONTINUING THE PATTERN

- 5 Place and close a new open ring through the two rings from the end of the chain indicated in figure 11. Make sure to place this ring so that it follows the spiral of the pattern, as shown in figure 11.



FIGURE 11

- 6 Repeat step 5 to continue the pattern to the desired length.



ADDING BEADS TO THE SINGLE SPIRAL CHAIN PATTERN

Construct the chain as illustrated, except add a single bead of appropriate size to each jump ring as you add it to the pattern.

In order to keep the beads spiralling correctly, make sure you place already added beads to the left of the pattern as you add each new jump ring and bead, as shown in figure 12.



FIGURE 12



DESIGN TIP

If you are creating this pattern with a counter-clockwise spiral, place each bead to the right as you add each new jump ring and bead, as shown in figure 13. In order to keep the beads spiralling correctly, it is important to select beads that are large enough so they don't slip through the pattern.



FIGURE 13

Double Spiral

This chain weave is a simple variation of the Single Spiral pattern. It has the added bonus of not unwinding, making it suitable for many jewelry applications. Because you double the number of jump rings in the pattern, however, there is little room left for adding beads to this weave.

You can make this pattern with several different sizes of jump rings, but here is a list of the normal minimum jump ring sizes:

- 16 gauge, $\frac{5}{16}$ -inch inner diameter (ID)
- 18 gauge, $\frac{7}{32}$ -inch ID
- 20 gauge, $\frac{5}{32}$ -inch ID

All jump ring size suggestions are based on stainless steel wire gauge and ID standards, but standards can change from manufacturer to manufacturer. Plus, as previously explained, your mileage may vary due to inconsistencies in wire gauge and wire material "spring back" during coil winding.

- 1 Open four jump rings. Close two jump rings.
- 2 Place and close an open ring through two closed rings.
- 3 Place and close another open ring through the same two closed rings from step 2.



- 4 Arrange the four rings from steps 2 and 3 into two ring pairs that are twisted against each other, as seen in figure 14. This ring arrangement is the base of the Double Spiral pattern and must be kept intact for the pattern to start correctly, especially during the next two steps.



FIGURE 14



DESIGN TIP

These instructions show how to construct the pattern with a clockwise spiral. To create the pattern with a counter-clockwise spiral, simply spiral the chain in the other direction from step 4 onward.

- 5 Place and close a new open ring through the first four rings from steps 2 and 3. Make sure to place this ring so that it follows the spiral of the pattern, as shown in figure 15.



FIGURE 15

- 6 Place and close another ring through the first four rings from steps 2 and 3. This ring follows the exact same placement as the ring you added in step 5 to create a ring pair, as shown in figure 16.



FIGURE 16

- 7 Place and close a new open ring through the four rings from the end of the chain indicated in figure 17, which includes the rings you added as open rings in steps 2, 3, 5, and 6. Make sure to place this ring so that it follows the spiral of the pattern, as shown in figure 17.



FIGURE 17

- 8 Place and close another ring through the four rings from the end of the chain indicated in figure 18, which includes the rings you added in as open rings in steps 2, 3, 5, and 6. This ring follows the exact same placement as the ring added in step 7 to create a ring pair, as shown in figure 18.



FIGURE 18

- 9 Place and close a new open ring through the four rings from the end of the chain indicated in figure 19, which includes the rings you added in steps 5, 6, 7, and 8. Make sure to place this ring so that it follows the spiral of the pattern, as shown in figure 19.



FIGURE 19

- 10 Place and close another ring through the four rings from the end of the chain indicated in figure 20, which includes the rings you added in steps 5, 6, 7, and 8. This ring follows the exact same placement as the ring added in step 9 to create a ring pair, as shown in figure 20.



FIGURE 20

- 11 Repeat steps 9 and 10 until the pattern reaches the desired length.

European 1 in 4

This chain weave is a pattern commonly believed to have been in continuous use for over 3,000 years. Originating with the Celts, the weave was later adopted by the Romans as backline armor for archers and prestige armor for centurions. The utilitarian nature of this pattern, coupled with its simple elegance, has ensured that it remains in use to this day, both as protection in the form of shark suits and butcher gloves and as decoration in the form of jewelry and accessories.



You can make this pattern from many different sizes of jump rings. For purposes of clarity, the following illustrations represent 16-gauge jump rings with an inner diameter (ID) of $\frac{5}{16}$ inch.

- 1 Open four jump rings. Close nine jump rings.
- 2 Place and close an open jump ring through four closed jump rings.
- 3 Lay the first five jump rings out as shown in figure 21.



FIGURE 21

- 4 Place and close an open jump ring through both two new closed jumps rings and the two closed jump rings from the side, or column, edge of the pattern, indicated in figure 22.



FIGURE 22

To ensure the pattern is continuing correctly, note the placement of this jump ring in relation to the open jump ring added in step 2. Make sure that both jump rings are laying in the same direction.



DESIGN TIP

To increase the width of the pattern, repeat step 4. Increasing the chain weave in this direction adds to the side, or column, edge of the pattern. Depending on the size of the jump rings used, the chain weave will stretch in this direction.

- 5 Place and close an open jump ring through two new closed jumps rings and the two closed jump rings from the top, or row, edge of the pattern created in step 2, as shown in figure 23. Repeat this step each time you would like to increase the height of the pattern.



FIGURE 23

- 6 Place and close an open jump ring through both a new closed jump ring and the three closed jump rings indicated in figure 24. Carefully note the placement of this jump ring in relation to the rest of the pattern to ensure that you are continuing the pattern correctly.



FIGURE 24

DESIGN TIP

If you have added more rows to your piece, repeat step 6 as many times as necessary to complete the new column height started in step 5. Increasing the pattern in this direction adds to the top, or row, edge of the chain weave. The chain weave will not stretch in this direction.

Byzantine Chain

This chain weave—also known as Bird's Nest or Fool's Trap—is an ancient and elegant chain pattern. The following instructions show how to weave a refined version of this pattern, consisting of two different jump ring sizes, with great efficiency. The larger jump rings can actually be of any size that fits through the smaller rings once folded back in steps 4, 9, and 14. However, the smaller rings must be specifically sized in order to keep the pattern tight.

The preferred sizes for the small jump rings in the Byzantine pattern are:

- 16 gauge, $\frac{7}{32}$ -inch inner diameter (ID)
- 18 gauge, $\frac{5}{32}$ -inch ID
- 20 gauge, $\frac{7}{64}$ -inch ID

The best matches of large jump rings with small jump rings are:

- 16 gauge, $\frac{1}{4}$ -inch ID
- 18 gauge, $\frac{3}{16}$ -inch ID
- 20 gauge, $\frac{1}{4}$ -inch ID

All jump ring size suggestions are based on stainless steel wire gauge and ID standards, but standards can change from manufacturer to manufacturer. Plus, as previously explained, your mileage may vary due to inconsistencies in wire gauge and wire material "spring back" during coil winding.

- 1 Close two large jump rings and two small jump rings. Open two large jump rings and two small jump rings.

- 2 Place and close an open small jump ring through two closed large jump rings and two closed small jump rings (figure 25).

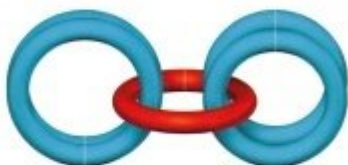


FIGURE 25

- 3 Repeat the previous step, placing and closing a new open small jump ring through the same four closed jump rings (figure 26).



FIGURE 26

- 4 Fold the two closed small jump rings from the end of the pattern backward, as shown in figure 27.



FIGURE 27

- 5 Place and close an open large jump ring through the two closed small jump rings folded back in step 4, as shown in figure 28.



FIGURE 28

- 6 Repeat the previous step, placing and closing a new open large jump ring through the same two closed small jump rings (figure 29).



FIGURE 29

The link ratio to continue this pattern is two open large rings to two open small rings to two closed small rings.

- 7 Place and close an open small jump ring through both two new closed small jump rings and the two large jump rings from the pattern added in steps 5 and 6 (figure 30).



FIGURE 30

- 8 Repeat the previous step, placing and closing a new small jump ring through the same four closed jump rings (figure 31).



FIGURE 31

- 9 Fold the two closed small jump rings from the end of the pattern backward, as shown in figure 32.



FIGURE 32

- 10 Place and close an open large jump ring through the two closed small jump rings folded back in step 9, as shown in figure 33.



FIGURE 33

- 11 Repeat the previous step, placing and closing a new open large jump ring through the same two closed small jump rings (figure 34).



FIGURE 34

- 12 Place and close an open small jump ring through both two new closed small jump rings and the two large jump rings from the pattern added in steps 10 and 11 (figure 35).



FIGURE 35

- 13 Repeat the previous step, placing and closing a new small jump ring through the same four closed jump rings (figure 36).



FIGURE 36

- 14 Fold the two closed small jump rings from the end of the pattern backward, as shown in figure 37.



FIGURE 37

- 15 Place and close an open large jump ring through the two closed small jump rings folded back in step 14, as shown in figure 38.



FIGURE 38

- 16 Repeat the previous step, placing and closing a new open large jump ring through the same two closed small jump rings (figure 39).



FIGURE 39

- 17 Repeat steps 7 through 16 until the pattern reaches the desired length.

Rings of Saturn

Based on the Byzantine pattern, this chain weave is a variation that I created several years ago in an attempt to lock down loose rings in a Byzantine sample where the rings were too large for the pattern. The final result is more open and lacy than the standard Byzantine. For Rings of Saturn to work correctly, however, you must adhere to the jump ring sizes precisely.

The sizes for the small jump rings in the Rings of Saturn pattern are:

- 16 gauge, 1/4-inch inner diameter (ID)
- 18 gauge, 3/16-inch ID
- 20 gauge, 1/8-inch ID

The sizes for the large jump rings in the Rings of Saturn pattern are:

- 16 gauge, 7/16-inch ID
- 18 gauge, 5/16-inch ID
- 20 gauge, 3/16-inch ID

All jump ring size suggestions are based on stainless steel wire gauge and ID standards, but standards can change from manufacturer to manufacturer. Plus, as previously explained, your mileage may vary due to inconsistencies in wire gauge and wire material "spring back" during coil winding.

- 1 Close one large jump ring and two small jump rings. Open one large jump ring and two small jump rings.
- 2 Place and close an open small ring through one closed large ring and two closed small rings (figure 40).



FIGURE 40

- 3 Place and close another open small ring through the same three closed rings as step 2 (figure 41).



FIGURE 41



- 4 Fold back the two small rings that were added as closed rings in step 2 to create the ring arrangement shown in figure 42.



FIGURE 42

- 5 Place and close a new open large ring through the two small rings indicated in figure 43 that you added as closed small rings in step 2, making sure to keep the arrangement of the first five rings intact, as shown in figure 43.



FIGURE 43

- 6 Place and close a new open small ring through the two small rings that were added closed in step 2. Note that this ring "floats" inside of and at a right angle to the large ring that was added as a closed ring in step 2 (figure 44).



FIGURE 44

The link ratio to continue this pattern is three open small rings to two closed small rings to one open large ring.

- 7 Place and close a new open small ring through two new small closed rings and the large open ring added in step 5 (figure 45).



FIGURE 45

- 8 Place and close another open small ring through the same three rings as step 7 (figure 46).



FIGURE 46

- 9 Fold back the two small rings that were added as closed rings in step 7 to create the ring arrangement seen in figure 47.



FIGURE 47

- 10 Place and close a new open large ring through the two small rings indicated in figure 48, which were added as closed small rings in step 7, making sure to keep the arrangement of the rings intact, as shown in figure 48.



FIGURE 48

- 11 Place and close a new small open ring through the four small rings indicated in figure 49. Note that these small rings were added as closed rings in steps 2 and 7 and that this small ring "floats" inside of and at a right angle to the large ring that you added as an open ring in step 5.



FIGURE 49

- 12 Place and close a new open small ring through two new small closed rings and the large ring added in step 10 (figure 50).



FIGURE 50

- 13 Place and close another open small ring through the same three rings as step 12 (figure 51).



FIGURE 51

- 14 Fold back the two small rings that were added as closed rings in step 12 to create the ring arrangement seen in figure 52.



FIGURE 52

- 15 Place and close a new open large ring through the two small rings indicated in figure 53, which you added as closed small rings in step 12, making sure to keep the arrangement of the rings intact as shown in figure 53.



FIGURE 53

- 16 Place and close a new small open ring through the four small rings indicated in the illustration. You added these small rings as closed rings in steps 7 and 12. The new small ring “floats” inside of and at a right angle to the large ring you added as an open ring in step 10 (figure 54).



FIGURE 54

- 17 Repeat steps 7 through 16 until the chain reaches the desired length.



DESIGN TIP

When weaving this pattern, the chain always ends with a loose ring. To finish the pattern with an even end, repeat step 6, except add the small ring at the opposite end of the chain.

Persian Star

This chain weave is a simple variation of the standard 1 in 3 Half-Persian pattern, using two different jump ring sizes. The final result is more symmetrical in cross section than the 1 in 3 Half-Persian. It is also better suited for including beads. For the Persian Star to work correctly, adhere to the jump ring sizes precisely.

The sizes for the small jump rings in the Persian Star pattern are:

- 16 gauge, $\frac{3}{16}$ -inch inner diameter (ID)
- 18 gauge, $\frac{5}{32}$ -inch ID
- 20 gauge, $\frac{1}{8}$ -inch ID

The sizes for the large jump rings in the Persian Star pattern are:

- 16 gauge, $\frac{5}{16}$ -inch ID
- 18 gauge, $\frac{1}{4}$ -inch ID
- 20 gauge, $\frac{3}{16}$ -inch ID

All jump ring size suggestions are based on stainless steel wire gauge and ID standards, but standards can change from manufacturer to manufacturer. Plus, as previously explained, your mileage may vary due to inconsistencies in wire gauge and wire material “spring back” during coil winding.

- 1 Open three large jump rings and close four small jump rings.
- 2 Place and close an open large ring through a closed small ring (figure 55).



FIGURE 55

- 3 Place and close a new open large ring through two new closed small rings (figure 56).



FIGURE 56

- 4 Arrange the two rings from step 2 and the three rings from step 3, as seen in figure 57, by laying the large ring from step 3 (shown blue) over the small ring from step 2 (shown red). You must keep this arrangement intact in order for the pattern to start correctly.



FIGURE 57

- 5 Place and close a new open large ring through a new closed small ring and the small ring indicated in figure 58, which was added as a closed ring in step 2. Be sure to keep the ring arrangement from step 4 intact. This locks the rings from steps 2 and 3 together, but it will not prevent the small rings from sliding around slightly.



FIGURE 58





- 6 Place and close a new open large ring through both a new closed small ring and the small ring indicated in figure 59, which was added as a closed ring as part of step 3. Be sure to keep the ring arrangement from steps 4 and 5 intact.



FIGURE 59

- 7 Repeat step 6 until the chain reaches the desired length.



DESIGN TIP

When weaving this pattern, the chain always ends with a loose small jump ring. In order to end the pattern evenly, either remove the loose small jump ring or don't add the small closed jump ring during the final repetition of step 6.

The Projects





Early Frost
Necklace

This long Single Spiral chain uses glass roller beads to evoke the chilly splendor of a frosty day.

Finished Size Approximately 24 inches (61 cm)

MATERIALS

220 sterling silver jump rings, 16 gauge,
7/32-inch ID (A)

55 crystal glass roller beads, 6 mm (B)

55 aquamarine lustre glass roller beads,
6 mm (C)

55 green lustre glass roller beads, 6 mm (D)

55 topaz lustre glass roller beads, 6 mm (E)

INSTRUCTIONS

- 1 Open all 220 jump rings (A).
- 2 Following the basic directions for adding beads to a Single Spiral chain on page 26, create a length of beaded spiral chain that consists of a total of 218 jump rings, with beads added to the chain in the pattern of (B), (C), (D), (E), repeated 54 times, followed by (B) and (C) once.

- 3 Place and close an open jump ring through the final two closed jump rings of one end of the chain, the final closed jump ring of the other end of the chain, and a roller bead (D), being sure to follow the correct twist of the chain and correct bead placement, as shown in figure 1.



FIGURE 1

- 4 Place and close an open jump ring through both the four closed jump rings shown and a glass roller bead (E), being sure to follow the correct twist of the chain and correct bead placement, as shown in figure 2.



FIGURE 2

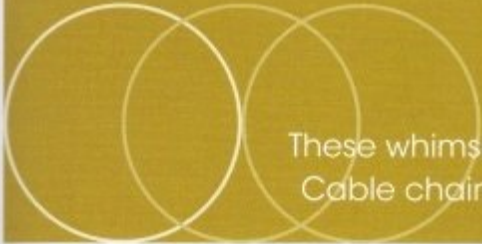


DESIGN TIP

Note that due to the placement of the beads on the spiral, the final jump ring can be difficult to add correctly, so patience is advised as you complete this chain.



Circle Drop
Chandeliers



These whimsical earrings made from Double Cable chains are sure to excite and delight.

Finished Size Approximately 2¼ inches (5.7 cm) long

MATERIALS

- 98 spring hard sterling silver jump rings, 21 gauge, 1⅝-inch ID (A)
- 12 sterling silver jump rings, 21 gauge, ⅞-inch ID (B)
- 16 sterling silver jump rings, 18 gauge, ⅝-inch ID (C)
- 6 blue or red glass ring beads, 9 mm
- 2 surgical stainless steel 4-mm ball posts with loops and butterfly nuts

INSTRUCTIONS

- 1 Open 58 of the jump rings (A) and 14 of the jump rings (C). Close the other 40 jump rings (A), all 12 jump rings (B), and the last two jump rings (C).
- 2 Following the instructions on page 24, create a length of Double Cable chain that consists of 14 jump rings (A) and is seven jump ring (A) pairs in length.
- 3 One at a time, place and close two open jump rings (A) through both the final two jump rings (A) of the chain created in step 2 and two new closed jump rings (B).
- 4 One at a time, place and close two open jump rings (C) through both the two closed jump rings (B) from one end of the chain and a ring bead. Set this chain aside.
- 5 Repeat steps 2 and 3 to create a second chain.
- 6 One at a time, place and close two open jump rings (A) through both the two closed jump rings (B) from one end of the chain created in step 5 and a closed jump ring (C).
- 7 One at a time, place and close two open jump rings (A) through both the closed jump ring (C) added in step 6 and two new closed jump rings (A).
- 8 One at a time, place and close two open jump rings (C) through both the two closed jump rings (A) added in step 7 and a ring bead.
- 9 One at a time, place and close two open jump rings (A) through both the closed jump ring (C) added in step 6 and two new closed jump rings (A).



- 10 One at a time, place and close two open jump rings (A) through both the two closed jump rings (A) added in step 9 and two new closed jump rings (B).
- 11 One at a time, place and close two open jump rings (C) through both the two closed jump rings (B) added in step 10 and a ring bead.
- 12 One at a time, place and close two new open jump rings (A) through the final two jump rings (A) from the end of the chain opposite to what was added in steps 5 through 11.
- 13 Repeat step 12 on the opposite end of the chain, which was set aside after step 4.
- 14 Place and close an open jump ring (C) through the four jump rings (A) added in steps 12 and 13, which includes two jump rings (A) from the end of each chain, noting the position of the ring beads by referring to the photograph of this project.
- 15 Place and close an open jump ring (A) through both the jump ring (C) added in step 14 and the loop of a ball post.
- 16 Repeat steps 2 through 15, making sure to reverse the position of the glass rings beads during step 14, to create a second mirrored earring.

Beaded Persian Star Necklace



With the simple addition of a few glass beads, you can transform a cocktail necklace from a plain chain into an elegant piece of jewelry.

Finished Size Approximately 19 inches (48.3 cm) in circumference

MATERIALS

16-gauge sterling silver jump rings, as follows:

- 76 with a $\frac{7}{32}$ -inch ID (A)
- 83 with an $\frac{11}{64}$ -inch ID (B)
- 7 with a $\frac{7}{32}$ -inch ID (C)

38 silver-lined, square-holed, light amethyst glass beads, size 2/0

Sterling silver infinity clasp, 13 x 7 mm

INSTRUCTIONS

Preparing the Jump Rings

- 1 Open 38 of the large jump rings (A), 75 of the small jump rings (B), and four of the medium jump rings (C). Close the 38 other large jump rings (A) and the three other medium jump rings (C).
- 2 One at a time, place and close the 38 open large jump rings (A) through the 38 beads.



Creating the Chain

- 3 Following the instructions for making a Persian Star pattern chain (page 36), create a length of chain that consists of the 38 large jump rings (A) with the beads attached, 37 other large jump rings (A) without beads, and the 75 small jump rings (B). As you construct the Persian Star chain, ensure that all of the square-holed glass beads sit on the same side of the chain, as in figure 1.



FIGURE 1



DESIGN TIP

Add the large jump rings (A) to the Persian Star chain in an alternating fashion, with and without beads. You start and end with jump rings that have attached beads on the full length of the chain.

Finishing the Necklace

- 4 Following the instructions for creating cable pattern chains (page 23), construct a short adjustment chain from three medium jump rings (C), one large jump ring (A), and eight small jump rings (B) in four sets of two rings each, as shown in figure 2.



FIGURE 2

- 5 Place and close an open medium jump ring (C) through both a small jump ring (B) at one end of the Persian Star chain and the two small jump rings (B) at one end of the short adjustment chain.

- 6 Repeat step 5, placing and closing a second open medium jump ring (C) through both the same small jump ring (B) on the Persian Star chain and the same two small jump rings (B) on the short adjustment chain. Before you close the ring, however, make sure the large jump ring (A) with a bead on the end of the Persian Star chain is pinned between the new medium jump ring (B) and the one you added in step 5, as in figure 3.



FIGURE 3

- 7 Place and close an open medium jump ring (C) through both the small jump ring (B) at one end of the Persian Star chain and the loop of the silver clasp.
- 8 To complete the necklace, repeat step 7, placing and closing a second open medium jump ring (C) through both the same small jump ring (B) at one end of the Persian Star chain and the loop of the silver clasp. Before you close the ring, however, make sure the large jump ring (A) with a bead on the end of the Persian Star chain is pinned between the new medium jump ring (B) and the one you added in step 7, as in figure 4.



FIGURE 4

Connection Quartet



These bails, given here in four variations, are a fun and stylish way to attach pendants to necklaces and chains.

Byzantine Bail

Finished Size Bail: approximately 1 inch (2.5 cm) long

MATERIALS

16-gauge sterling silver jump rings, as follows:

- 5 with an $1\frac{1}{64}$ -inch ID (A)
- 2 with a $\frac{7}{32}$ -inch ID (B)
- 2 with a $\frac{9}{32}$ -inch ID (C)

Sterling silver dragon pendant, 48 mm

18-inch (45.7 cm) length of ball chain, 2 mm

Ball chain clasp, 2 mm



- 4 Repeat step 3, placing and closing a new open jump ring (B) through the same three closed jump rings (A).

- 5 Fold the two closed jump rings (A) backward, as shown in figure 1.



FIGURE 1

- 6 One at a time, place and close two open jump rings (C) through both the two closed jump rings (A) folded back in the previous step and two new closed jump rings (A), as shown in figure 2.



FIGURE 2

INSTRUCTIONS

- 1 Open one of the jump rings (A), both jump rings (B), and both jump rings (C). Close the four other jump rings (A).
- 2 Place and close an open jump ring (A) through the loop of the dragon pendant.
- 3 Place and close an open jump ring (B) through two new closed jump rings (A) and the jump ring (A) from step 2.

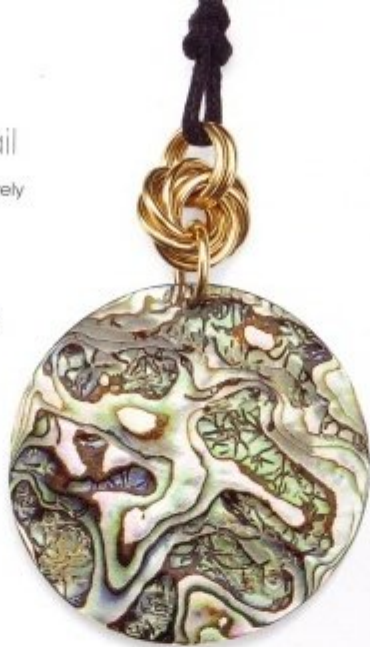
- 7 Run the ball chain through the final two closed jump rings (A) added in step 6, and end with the ball chain clasp.

Möbius Knot Bail

Finished Size Bail: approximately
3/4 inch (1.9 cm) long

MATERIALS

- 11 gold-filled jump rings, 16 gauge, 5/32-inch ID
- Round paua shell pendant, 38 mm
- 26 to 28 inches (66 to 71.1 cm) of black braided cotton cord, 2 mm
- 2 black porcelain double-lace adjuster beads, 2 mm



INSTRUCTIONS

- 1 Open 10 of the jump rings and close the last one. Tie a loop knot in the center of the cotton cord. The knot in the photograph is a True Lover's Knot, but Figure Eight Knots also work very well. Feed one end of the cotton cord through one hole on each of two adjuster beads, and tie a simple knot in the end of the cotton cord. Feed the other end of the cotton cord through the remaining holes in each of the two adjuster beads, but from the opposite direction, and tie a simple knot in the end of the cotton cord.
 - 2 Place and close an open jump ring through a closed jump ring.
 - 3 Place and close a new open jump ring through the two closed jump rings from step 2, ensuring that the rings follow the same twist, as shown in figure 3.
- 
- FIGURE 3
- 4 Place and close a new open jump ring through the three closed jump rings from step 3, ensuring that the rings continue to follow the same twist, as shown in figure 4.
- 
- FIGURE 4
- 5 Repeat step 4 a total of four more times, placing and closing each new open jump ring through all of the previous rings and ensuring that all of the rings continue to follow the same twist to complete the Möbius Knot.
 - 6 Place and close a new open jump ring through both all eight rings of the Möbius Knot and the hole of the shell pendant.
 - 7 One at a time, place and close two new open jump rings through both all eight rings of the Möbius Knot and the loop of the adjustable cotton cord prepared earlier.

Rings of Saturn Bail

Finished Size Bail: approximately 1 inch (2.5 cm) long

MATERIALS

18-gauge sterling silver jump rings, as follows:

- 7 with a $\frac{5}{32}$ -inch ID (A)
- 3 with a $\frac{15}{64}$ -inch ID (B)

"B.C. jade" Maori fishhook pendant (Hei Matua), 50 mm

26 to 28 inches (66 to 71.1 cm) of black braided cotton cord, 1 mm thick

2 black porcelain double-lace adjuster beads, 1 mm

INSTRUCTIONS

- 1 Open four of the small jump rings (A) and all three of the large jump rings (B). Close the other three small jump rings (A). Tie a loop knot in the center of the cotton cord; the knot in the photograph is a Figure Eight Knot. Feed one end of the cotton cord through one hole on each of two adjuster beads, and tie a simple knot in the end of the cotton cord. Feed the other end of the cotton cord through the remaining holes of each of the two adjuster beads, but from the opposite direction, and tie a simple knot in the end of the cotton cord.
- 2 One at a time, place and close two open small jump rings (A) through both the loop of the adjustable braided cord and a closed small jump ring (A).

- 3 Place and close a new open small jump ring (A) through two new closed jump rings (A) and the closed small jump ring (A) added in step 2.

- 4 Repeat the previous step, placing and closing a new open small jump ring (A) through the same three small jump rings.

- 5 Fold the two closed small jump rings (A) added in step 3 backward, as shown in figure 5.



FIGURE 5

- 6 Place and close an open large jump ring (B) through the two closed small jump rings (A) folded backward in the previous step, as shown in figure 6.



FIGURE 6



- 7 Place and close a new open large jump ring (B) through the two closed small jump rings (A) that were added as closed small jump rings in step 3, so that it sits between the two closed small jump rings folded back in step 5 and the jump ring (B) added in the previous step, as shown in figure 7.



FIGURE 7

- 8 Place and close a new open large jump ring (B) diagonally through both the two large jump rings (B) added in steps 6 and 7, as shown in figure 8, and through the hole of the fishhook pendant.



FIGURE 8



Double Cable Bail

Finished Size Bail: approximately 1 1/4 inches (3.2 cm) long

MATERIALS

6 sterling silver jump rings, 18 gauge,
5/32-inch ID (A)

16-gauge sterling silver jump rings, as follows:

- 2 with a 9/32-inch ID (B)
- 3 with a 7/32-inch ID (C)
- 2 with an 11/64-inch ID (D)

"Moonlight" crystal leaf pendant, 26 mm

Magnetic steel cable choker, 1 mm,
16-inch (40.6 cm) length

INSTRUCTIONS

- 1 Open all six jump rings (A) and one of the jump rings (C). Close both jump rings (B), the other two jump rings (C), and both jump rings (D).

- 2 Following the basic instructions for Double Cable chains on page 24, create a length of Double Cable chain that consists of two pairs of jump rings (B) connected to two pairs of jump rings (C), which are connected to two pairs of jump rings (D) by two pairs of jump rings (A) (figure 9).



FIGURE 9

- 3 Place and close an open jump ring (C) through both the hole of a crystal leaf pendant and the two closed jump rings (D) from one end of the Double Cable chain created in step 2. Close the jump ring.
- 4 One at a time, place and close two open jump rings (A) through the two closed jump rings (B) from the other end of the Double Cable chain and over the cable of the choker so that the cable choker passes through the jump rings (A) when they are closed.



Gypsy Cuff Earrings



Tired of your regular earrings? Try something with a splash of sexy color and rakish style!

Finished Size Approximately 2½ inches (6.4 cm) long

MATERIALS

21-gauge sterling silver jump rings, as follows:

- 120 with a 3/32-inch ID (A)
- 24 with a 1/8-inch ID (B)

2 sterling silver jump rings, 16 gauge, 7/32-inch ID (C)

Pair of plain sterling silver ear cuffs, 3 mm (D)

48 amethyst glass seed beads, size 8/0 (E)

2 amethyst translucent crow beads, 9 mm (F)

2 surgical stainless steel 4-mm ball posts with loop and butterfly nut

INSTRUCTIONS

- 1 Open 30 of the jump rings (A), all 12 jump rings (B), and the one jump ring (C). Close the other 30 jump rings (A).
- 2 Following the instructions on page 24, create a length of Double Cable chain that consists of 29 jump ring (A) pairs.
- 3 Place and close an open jump ring (A) through both the final pair of closed jump rings (A) from one end of the Double Cable chain created in step 2 and the hole of an ear cuff (D).

- 4 Place and close an open jump ring (B) through both the jump ring (A) added in the previous step and two seed beads (E), as shown in figure 1.

FIGURE 1



- 5 Repeat the previous step a total of 11 more times, placing and closing new jump rings (B) with two seed beads (E) onto the second, fourth, sixth, eighth, 10th, 12th, 14th, 16th, 18th, 20th, and 22nd pairs of jump rings (A) from the Double Cable chain. Ensure that the beads are on the "outside" of the Double Cable chain (figure 2).

FIGURE 2



- 6 Place and close an open jump ring (A) through both the 25th jump ring (A) pair from the Double Cable chain and the loop of a ball post. Ensure that the ball post is attached to the "inside" of the Double Cable chain, with the post facing "backwards," as shown in figure 3.

FIGURE 3



- 7 Place and close an open jump ring (C) through both the final jump ring (A) pair from the Double Cable chain and a crow bead (F).
- 8 To create the left ear cuff, repeat steps 2 through 7 and reverse the direction of the ball post.





Mermaid's Tail



Delicate and sassy, these little earrings demand attention with a splash of fine color.

Finished Size Approximately 1 1/2 inches (3.8 cm) long

MATERIALS

- 2 sterling silver jump rings, 16 gauge, 9/32-inch ID (A)
- 66 spring hard sterling silver jump rings, 21 gauge, 3/32-inch ID (B)
- 14 emerald glass seed beads, size 8/0
- 2 surgical stainless steel 4-mm ball posts with loops and butterfly nuts

INSTRUCTIONS

- 1 Open both large jump rings (A) and 40 of the small jump rings (B). Close the other 26 small jump rings (B).
- 2 Following the basic instructions for creating Double Cable pattern chains on page 24, construct a short length of Double Cable chain from four closed small jump rings (B) and two open small jump rings (B). Set this chain aside.
- 3 Place and close an open large jump ring (A) through nine small closed jump rings (B).
- 4 Following the instructions for the basic European 1 in 4 pattern on page 28, use the nine small closed jump rings (B) added in the previous step and eight new open small jump rings (B) as the base to create a new row consisting of eight small jump rings (B).

- 5 Continuing to follow the instructions for the basic European 1 in 4 pattern on page 28, use the eight small closed jump rings (B) added in the previous step and seven new open small jump rings (B) as the base to create a new row consisting of seven small jump rings (B). As each of the seven new open small jump rings (B) are added, place each ring through one seed bead (figure 1).



FIGURE 1

- 6 Place and close an open small jump ring (B) through both the large closed jump ring (A) and two closed small jump rings (B) from the end of the short length of Double Cable chain prepared in step 2.

- 7 Repeat the previous step, placing and closing a second open small jump ring (B) through both the same large closed jump ring (A) and the same two closed small jump rings (B) from the end of the short length of Double Cable chain prepared in step 2.

- 8 Finish the earring by placing and closing a small open jump ring (B) through both the two small closed jump rings (B) at the opposite end of the short length of Double Cable chain and the loop of a ball post (figure 2).



FIGURE 2

- 9 To create the second earring as a mirror image of the first, follow steps 2 through 8, except that base rows of small closed jump rings (B) attached in step 3 should overlap in the opposite direction of the base rows of the first earring.





Bejewelled
Eyeglass Chain



Here's a lightweight aluminum
eyeglass chain for the hip
librarian in your life!

Finished Size Approximately 24 inches (61 cm) long

MATERIALS

- 214 bright aluminum jump rings, 18 gauge,
7/32-inch ID (A)
- 50 amethyst glass "E" beads, size 6/0 (B)
- 25 "hyacinth ghost" glass "E" beads, size 6/0 (C)
- 25 "crystal ghost" glass "E" beads, size 6/0 (D)
- 2 clear eyeglass holders

INSTRUCTIONS

- 1 Open all 214 jump rings (A).
- 2 Following the basic directions for adding beads to a Single Spiral chain on page 26, create a length of beaded spiral chain that consists of a total of 202 jump rings with beads added to the chain in the pattern of:

- Jump ring with "E" bead (B)
- Jump ring with no bead
- Jump ring with "E" bead (C)
- Jump ring with no bead
- Jump ring with "E" bead (B)
- Jump ring with no bead
- Jump ring with "E" bead (D)

Repeated 25 times, followed by:

- Jump ring with no bead
- Jump ring with "E" bead (C)
- Jump ring with no bead
- Jump ring with "E" bead (B)

This creates a beaded Single Spiral chain with beads on every second link.

- 3 Following the basic directions for the Single Spiral chain on page 24, add three more open jump rings (A) with no beads to one end of the chain created in step 2.
- 4 Place and close an open jump ring (A) through both the final two closed jump links (A) added in step 3 and the loop of an eyeglass holder, making sure to follow the correct twist of the spiral pattern.
- 5 Place and close an open jump ring (A) through the final closed jump link (A) added in step 3, the closed jump link (A) added in step 4, and the loop of an eyeglass holder, making sure to follow the correct twist of the spiral pattern as shown in figure 1.



FIGURE 1

- 6 Repeat steps 3 through 5 to complete the other end of the chain.

Moroccan Double Spiral Bracelet



Glass ring beads add an extra dimension of translucent color to an ordinary chain mail pattern in this exotic bracelet.

Finished Size Approximately 8½ inches (21.6 cm) in circumference

MATERIALS

18-gauge copper jump rings, as follows:

- 30 with a ¼-inch ID (A)
- 64 with a 7/32-inch ID (B)
- 7 with a ⅛-inch ID (C)

8 ruby glass ring beads, 9 mm

Copper-plated lobster claw clasp, 12 x 6.4 mm

INSTRUCTIONS

- 1 Open all 30 jump rings (A), 61 of the jump rings (B), and all seven jump rings (C). Close the three remaining jump rings (B).
- 2 One at a time, place and close two open jump rings (A) through a ring bead.
- 3 One at a time, place and close two open jump rings (B) through the two jump rings (A) added in step 2.

- 4 Following the basic instructions for creating a Double Spiral pattern chain on page 26, use the two jump rings (A) added in step 2 and the two jump rings (B) added in step 3 as the base to add six more open jump rings (B) following the Double Spiral pattern, as shown in figure 1.



FIGURE 1

- 5 One at a time, place and close two open jump rings (A) through both the four jump rings (B) from the end of the Double Spiral chain created in step 4 (following the direction of the spiral) and a new ring bead.



FIGURE 2



- 6 Create a continuous chain by repeating steps 2 through 5 a total of six more times, except that the ring bead added in step 5 is the ring bead started with when repeating step 2.
- 7 Repeat steps 2 and 3 once more, except that the ring bead started with in step 2 is one of the ring beads from the end of the chain.
- 8 Place and close an open jump ring (B), following the spiral of the chain, through both the two jump rings (A) and two jump rings (B) added in the previous step.
- 9 Place and close an open jump ring (C), following the spiral of the chain, through the two jump rings (B) added in step 7, through the two jump rings (B) added in the previous step, and the loop of a clasp (figure 3).



FIGURE 3

- 10 Following the basic instructions for creating cable pattern chains on page 23, construct a short adjustment chain from three closed jump rings (B) and six jump rings (C) in three sets of two rings each, one set loose at the end of the chain.
- 11 Finish the bracelet by placing and closing an open jump ring (B) through both the ring bead from the opposite end of the chain and the two jump rings (B) at the end of the small adjustment chain created in the previous step (figure 4).



FIGURE 4



Drops of Jupiter

This jaw-dropping necklace features hand-made beads with specks of real gold mined from the Canadian Yukon and expertly frozen into dazzling glass.

Finished Size Approximately 18 inches (45.7 cm) in circumference

MATERIALS

16-gauge gold-filled jump rings, as follows:

- 58 with a $\frac{9}{32}$ -inch ID (A)
- 282 with an $\frac{1}{16}$ -inch ID (B)

12 gold-filled jump rings, 18 gauge, $\frac{5}{32}$ -inch ID (C)

6 donut beads, 10 to 12 mm

Gold-plated lobster claw clasp, 13 mm

INSTRUCTIONS

- 1 Open 56 of the jump rings (A), 172 of the jump rings (B), and all 12 jump rings (C). Close the last two jump rings (A) and the other 110 jump rings (B).
- 2 Place and close a jump ring (A) through a donut bead. Repeat with the five remaining donut beads.
- 3 Following the instructions for Byzantine chain on page 30, construct a length Byzantine pattern chain that consists of a total of 50 jump rings (A) in pairs and 240 jump rings (B).

DESIGN TIP

Make sure that you use jump rings (A) as the large jump rings in steps 2, 10, and 11 of the base Byzantine chain pattern. Use jump rings (B) in place of the large jump rings added in steps 5, 6, 15, and 16 of the base Byzantine chain pattern.

- 4 Temporarily mark the seventh, 10th, 13th, 16th, and 19th jump ring (A) pairs from the Byzantine chain created in step 3.
- 5 One at a time, place and close two open jump rings (B) through both a jump ring (A) with a donut bead created in step 2 and two closed jump rings (B).
- 6 Fold the closed jump rings (B) added in step 5 backward, as in the base Byzantine chain pattern.
- 7 One at a time, place and close two open jump rings (B) through both the closed jump rings (B) that were added in step 5 and the seventh pair of jump rings (A) from the Byzantine chain created in step 3 (figure 1).



FIGURE 1

- 8 Repeat step 7 a total of three more times, adding jump rings (A) with donut beads to the 10th, 16th, and 17th jump ring (A) pairs from the Byzantine chain created in step 3, making sure that all the beads added are on the same side of the chain.
- 9 Following the instructions for Byzantine chain on page 30 and using a jump ring (A) with donut bead created in step 2 as a base, create a short length of Byzantine chain that consists of the jump ring (A) with donut bead and 16 jump rings (B). This means that the Byzantine chain will not actually end correctly; you must fold it back before continuing on to step 10.

- 10 One at a time, place and close two open jump rings (B) through both the final closed jump rings (B) of the short length of Byzantine chain created in step 9 and the 13th pair of jump rings (A) from the Byzantine chain created in step 3 (figure 2).



FIGURE 2

- 11 Place and close an open jump ring (B) through the loop of the clasp.



- 12 One at a time, place and close two open jump rings (C) through both the final pair of jump rings (A) from one end of the main chain created in step 3 and the jump ring (B) added to the clasp in step 11.
- 13 One at a time, place and close two open jump rings (C) through both the final pair of jump rings (A) from the other end of the main chain created in step 3 and a closed jump ring (B).
- 14 One at a time, place and close two open jump rings (C) through both the closed jump ring (B) added in step 13 and a closed jump ring (A).
- 15 Repeat steps 13 and 14 twice to create an adjustment chain. Use a closed jump ring (A) with a donut bead that was created in step 2 as the final closed jump ring.

Centipede Bracelet & Earrings



This technique uses a size variation of the basic European 1 in 4 pattern to create an elegantly simple bracelet and earring set.

BASIC EUROPEAN 1 IN 4 VARIATION TECHNIQUE

This pattern requires at least two sizes of jump rings. Open all the jump rings required for the project, large and small.

- 1 Place and close all of the large jump rings required for the project through beads appropriate to their dimensions (see below for specific size information), as shown in figure 1.



FIGURE 1

- 2 Place and close an open small jump ring through two of the larger jump rings with beads prepared in step 1, as shown in figure 2.



FIGURE 2

- 3 Repeat step 2, placing and closing a second open small jump ring through the same two large jump rings with beads prepared in step 1, as shown in figure 3.



FIGURE 3

- 4 Fold the large jump ring with a bead added in step 2 backward, as shown in figure 4, to create the start of the centipede pattern chain.



FIGURE 4

- 5 Place and close an open small jump ring through one of the large jump rings with a bead prepared in step 1 and the large jump ring with a bead at the end of the centipede pattern chain, as shown in figure 5.



FIGURE 5

- 6 Repeat the previous step, placing and closing an open small jump ring through the same large jump ring with a bead prepared in step 1 and the large jump ring with a bead from the end of the centipede pattern, as shown in figure 6.



FIGURE 6

- 7 Fold the large jump ring with a bead added in step 5 backward, as shown in figure 7, to continue the centipede pattern chain.



FIGURE 7

- 8 Continue the process of adding new large jump rings with beads, as in steps 5, 6, and 7, until the centipede pattern chain is complete.

Bracelet

Finished Size Fits a 8 1/2-inch (21.6 cm) diameter wrist, approximately

MATERIALS

32 seamless sterling silver beads, 5 mm

16-gauge sterling silver jump rings, as follows:

- 32 with a 9/32-inch ID (A)
- 2 with a 7/32-inch ID (B)
- 3 with an 11/64-inch ID (C)

72 spring hard sterling silver jump rings.
21 gauge, 1/8-inch ID (D)

1 sterling silver infinity clasp, 13 x 7 mm

INSTRUCTIONS

- 1 Open all 32 jump rings (A), one of the jump rings (B), and all 72 jump rings (D). Close the other jump ring (B) and all three jump rings (C).
- 2 Place and close a jump ring (A) through a seamless bead. Repeat with the remaining 31 seamless beads.
- 3 Using the prepared jump rings (A) with seamless beads from step 2 and 64 of the open jump rings (D), follow steps 2 through 8 of the Basic European 1 in 4 Variation Technique to create a centipede chain that is 32 closed jump rings with beads in length.
- 4 Place and close the open jump ring (B) through the loop of the clasp.

- 5 Place and close an open jump ring (D) through both the closed jump ring (A) with a seamless bead from the end of the centipede chain, where the seamless bead faces out, and the closed jump ring (B) with clasp prepared in step 4 (figure 8).



FIGURE 8

- 6 Fold the closed jump ring (B) with the lobster claw clasp into the position shown in figure 9.



FIGURE 9

- 7 Repeat step 5, placing and closing a second open jump ring (D) through the same closed jump ring (A) with a seamless bead from the end of the centipede chain, where the seamless bead faces out, and through the closed jump ring (B) with a clasp added in step 5 (figure 10).



FIGURE 10

- 8 Place and close an open jump ring (D) through the closed jump ring (A) with a seamless bead from the end of the centipede chain, where the seamless bead does not face out, and the closed jump ring (B) (figure 11).



FIGURE 11

- 9 Repeat step 8, placing and closing a second open jump ring (D) through both the same closed jump ring (A) with a bead from the end of the centipede chain, where the seamless bead does not face out, and the closed jump ring (B) added in the previous step, folding the closed jump ring (B) in to the position shown in figure 12.



FIGURE 12

- 10 Create a short adjustment chain to finish the bracelet, by placing and closing six open jump rings (D) through both the three closed jump rings (C) and the closed jump ring (B) added in step 8, as shown in figure 13.

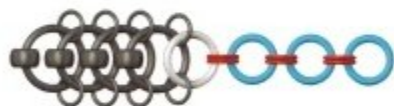


FIGURE 13

Earrings

Finished Size Approximately 1 1/4 inch (3.2 cm)

MATERIALS

- 10 sterling silver jump rings, 18 gauge, 15/64-inch ID (A)
- 18 spring hard sterling silver jump rings, 21 gauge, 3/32-inch ID (B)
- 10 seamless sterling silver beads, 4 mm
- 2 surgical stainless steel 4-mm ball posts with loops and butterfly nuts

INSTRUCTIONS

- 1 Open all 10 jump rings (A) and all 18 jump rings (B).
- 2 Place and close a jump ring (A) through a seamless bead. Repeat with four more seamless beads.
- 3 Using the prepared jump rings with beads from step 2 and eight open jump rings (B), follow steps 2 through 8 of the Basic European 1 in 4 Variation Technique on page 69 to create a centipede chain that is five closed jump rings with beads in length.



- 4 Place and close an open jump ring (B) through both the closed jump ring (A) with a bead from the end of the centipede chain that doesn't have a bead, created in step 2, and the loop of a surgical stainless steel ball post (figure 14).
- 5 Repeat steps 2 through 4 to create a second identical earring.



FIGURE 14



Peacock Earrings

Employ the basic European 1 in 4 Pattern and four shades of blue and green beads to create earrings inspired by the fan of a peacock's tail.

Finished Size Approximately 1 inch (2.5 cm) long

MATERIALS

- 2 sterling silver jump rings, 16 gauge, $\frac{9}{32}$ -inch ID (A)
- 66 spring hard sterling silver jump rings, 21 gauge, $\frac{3}{32}$ -inch ID (B)
- 8 sterling silver jump rings, 21 gauge, $\frac{1}{8}$ -inch ID (C)
- 2 peridot lustre glass "E" beads, size 6/0 (D)
- 2 blue zircon glass "E" beads, size 6/0 (E)
- 2 teal translucent glass "E" beads, size 6/0 (F)
- 2 aquamarine glass "E" beads, size 6/0 (G)
- 2 surgical stainless steel 4-mm ball posts with loops and butterfly nuts

INSTRUCTIONS

- 1 Open both jump rings (A), 42 of the jump rings (B), and all eight jump rings (C). Close the other 24 jump rings (B).
- 2 Place and close an open large jump ring (A) through 12 small closed jump rings (B). Separate the small closed jump rings (B) into two groups consisting of six small closed jump rings (B) each.

- 3 Following the instructions for the basic European 1 in 4 pattern on page 28, use one group of six small closed jump rings (B) as the base for a triangle of European 1 in 4 pattern mail made from small jump rings (B). The triangle consists of a total of six rows; reduce the total number of jump rings (B) by one each row.

- 4 Use the other group of six small closed jump rings (B) as the base for a row of European 1 in 4 pattern mail that consists of five small closed jump rings (B), as shown in figure 1.



FIGURE 1

- 5 Place and close an open medium jump ring (C) through both the first two closed jump rings (B) from the row of five small closed jump rings (B) created in the last step and an "E" bead (E).

- 6 Repeat the process of the previous step, using three more open medium jump links (C) to attach the three remaining colors of glass "E" beads (D, F, and G) to the row of five small closed jump rings (B) created in step 4 (figure 2).



FIGURE 2

- 7 Place and close a small open jump link (B) through both the small closed jump ring (B) at the top of the triangle created in step 3 and the loop of a ball post (figure 3).



FIGURE 3

- 8 To create the second earring as a mirror image of the first, follow steps 2 through 7, except that base rows of small closed jump rings (B) attached in steps 3 and 4 should overlap in the opposite direction of the base rows of the first earring.





Arrowhead
Wrap

Here's something completely different. Spiky beads add a hip third dimension to this chain that you can wear as either a choker or a bracelet.

Finished Size Approximately 30 inches (76.2 cm) long

MATERIALS

16-gauge jewelry brass jump rings, as follows:

- 133 with $\frac{9}{32}$ -inch ID (A)
- 133 with $\frac{11}{64}$ -inch ID (B)

25 black, triangular glass hair pendant beads
(aka *Talhakimt* or *Taunfaulk* beads), 18 mm

Sleeve-style magnetic clasp, 34 mm

INSTRUCTIONS

- 1 Open all 133 jump rings (A) and 29 of the jump rings (B). Close the other 104 jump rings (B).
- 2 One at a time, place and close 25 open jump rings (B) through one triangular bead each.
- 3 Following the instructions for Persian Star chain on page 36, construct a length of chain that consists of a total of 125 jump rings (A), 100 jump rings (B), and the 25 jump rings (B) with triangular beads created in step 2 (added to the regular Persian Star pattern as every fifth jump ring (B) of the pattern, with all the triangular beads on the same side of the chain).

- 4 One at a time, place and close two open jump rings (A) through both the final jump ring (B) of the chain, with one of the jump rings (A) added above, and the other jump ring (A) added below the final jump ring (A) of the chain, as shown in figure 1.



FIGURE 1

- 5 One at a time, place and close two open jump rings (B) through both the jump rings (A) added in step 4 and the loop from one side of the magnetic clasp.
- 6 Repeat steps 4 and 5 with the other end of the chain and the other side of the magnetic clasp.

Golden Lady Earrings



This spiralling method of adding beads transforms a Single Cable chain into something dazzling.

Finished Size Approximately 1½ inches (3.8 cm) long

MATERIALS

- 18 gold-filled jump rings, 18 gauge, 5/32-inch ID (A)
- 18 seamless gold-filled beads, 4 mm (B)
- 2 14kt gold-filled French clips (C)

INSTRUCTIONS

- 1 Open all 18 jump rings (A).
- 2 Place and close an open jump ring (A) through a seamless bead (B).
- 3 Place and close a new open jump ring (A) through both a seamless bead (B) and the jump ring (A) added in step 2.
- 4 Place and close a new open jump ring (A) through both a seamless bead (B) and the jump ring (A) added in step 3, making sure that the seamless bead (B) added in step 3 sits to the right of the chain, as shown in figure 1.



FIGURE 1

- 5 Place and close a new open jump ring (A) through both a seamless bead (B) and the jump ring (A) added in step 4, making sure that the seamless bead (B) added in step 4 sits to the top of the chain, as shown in figure 2.



FIGURE 2

- 6 Place and close a new open jump ring (A) through both a seamless bead (B) and the jump ring (A) added in step 5, making sure that the seamless bead (B) added in step 5 sits to the left of the chain, as shown in figure 3.



FIGURE 3

- 7 Place and close a new open jump ring (A) through both a seamless bead (B) and the jump ring (A) added in step 6, making sure that the seamless bead (B) added in step 6 sits to the bottom of the chain, as shown in figure 4.



FIGURE 4

- 8 Place and close a new open jump ring (A) through both a seamless bead (B) and the jump ring (A) added in step 7, making sure that the seamless bead (B) added in step 7 sits to the right of the chain, as shown in figure 5.



FIGURE 5

- 9 Place and close a new open jump ring (A) through both a seamless bead (B) and the jump ring (A) added in step 8, making sure that the seamless bead (B) added in step 8 sits to the top of the chain, as shown in figure 6.



FIGURE 6

- 10 Place and close a new open jump ring (A) through a seamless bead (B), the jump ring (A) added in step 9, and the loop of a French clip (C), making sure that the seamless bead (B) added in step 9 sits to the left of the chain and that the seamless bead (B) added during this step sits to the bottom of the chain, as shown in figure 7.



FIGURE 7

- 11 Repeat steps 2 through 10, being sure to spiral the beads in the opposite direction around the single cable chain to create the second earring.





Zigzag Bracelet

In this classy, flashy bracelet, the "X" patterns formed by the green beads dance back and forth along the Double Cable chain.

Finished Size Approximately 7½ inches (19 cm) in circumference

MATERIALS

132 sterling silver jump rings, 21 gauge,
⅛-inch ID (A)

7 sterling silver jump rings, 16 gauge,
⅝₃₂-inch ID (B)

18-gauge sterling silver jump rings, as follows:

○ 56 with a ⅛-inch ID (C)

○ 24 with a ⅝₃₂-inch ID (D)

28 green iris glass "E" beads

Sterling silver infinity clasp, 13 mm

INSTRUCTIONS

1 Open all 132 jump rings (A), all seven jump rings (B), and two of the jump rings (D). Close all 56 jump rings (C) and the other 22 jump rings (D).

2 One at a time, place and close a total of seven open jump rings (B) through four "E" beads each. Note that these jump rings (B) can be slightly hard to close; patience is advised as you add the "E" beads.

3 One at a time, place and close two open jump rings (A) through two closed jump rings (C) and two closed jump rings (D).

4 Repeat step 3 a total of three more times, adding three more pairs of closed jump rings (C) to the pair of closed jump rings (D) from step 3 to create a small cross-shaped piece of Double Cable chain, as shown in figure 1.



FIGURE 1

5 Repeat steps 3 and 4 a total of five more times to create a total of six small cross-shaped pieces of Double Cable chain.

6 One at a time, place and close two open jump rings (A) through both one of the jump rings (B) with four "E" beads prepared in step 2 and a pair of closed jump rings (C) from one of the small cross-shaped pieces of Double Cable chain created in steps 4 and 5.



- 7 One at a time, place and close two open jump rings (A) through both the same jump ring (B) with four "E" beads as in step 6 and the next pair of closed jump rings (C) from the same small cross-shaped piece of Double Cable chain as in step 6. Make sure that the open jump rings (A) are added to the jump ring (B) at the next point between the "E" beads, as shown in figure 2.



FIGURE 2

- 8 One at a time, place and close two open jump rings (A) through both a new jump ring (B) with four "E" beads prepared in step 2 and the next pair of closed jump rings (C) from the same small cross-shaped piece of Double Cable chain as in step 6.

- 9 One at a time, place and close two open jump rings (A) through both the same jump ring (B) with four "E" beads as step 8 and the final pair of closed jump rings (C) from the same small cross-shaped piece of Double Cable chain as in step 6. Make sure that the open jump rings (A) are added to the jump ring (B) at the next point between the "E" beads, as illustrated in figure 3.



FIGURE 3

- 10 Following the same process as steps 6 through 9, create a length of chain that includes all seven jump rings (B) with four "E" beads and all six small cross-shaped pieces of Double Cable chain.

- 11 One at a time, place and close two jump rings (A) through two of the jump ring (C) pairs from the first small cross-shaped piece of Double Cable chain, as illustrated in figure 4.



FIGURE 4

- 12 Repeat step 11 a total of five more times, once for each small cross-shaped piece of Double Cable chain remaining, making sure to alternate the side of the two jump ring (C) pairs joined, as in the photograph of the finished bracelet.
- 13 One at a time, place and close two open jump rings (D) through the loop of a clasp.
- 14 One at a time, place and close two open jump rings (A) through both the two closed jump rings (D) from step 13 and the closed jump ring (B) with four "E" beads from one end of the chain. Make sure that the open jump rings (A) are added to the jump ring (B) at the next point between the "E" beads.
- 15 One at a time, place and close two open jump rings (A) through both the two closed jump rings (D) from step 13 and the same closed jump ring (B) with four "E" beads from one end of the chain as in step 14. Make sure that the open jump rings (A) are added to the jump ring (B) at the next point between the "E" beads, as shown in figure 5.

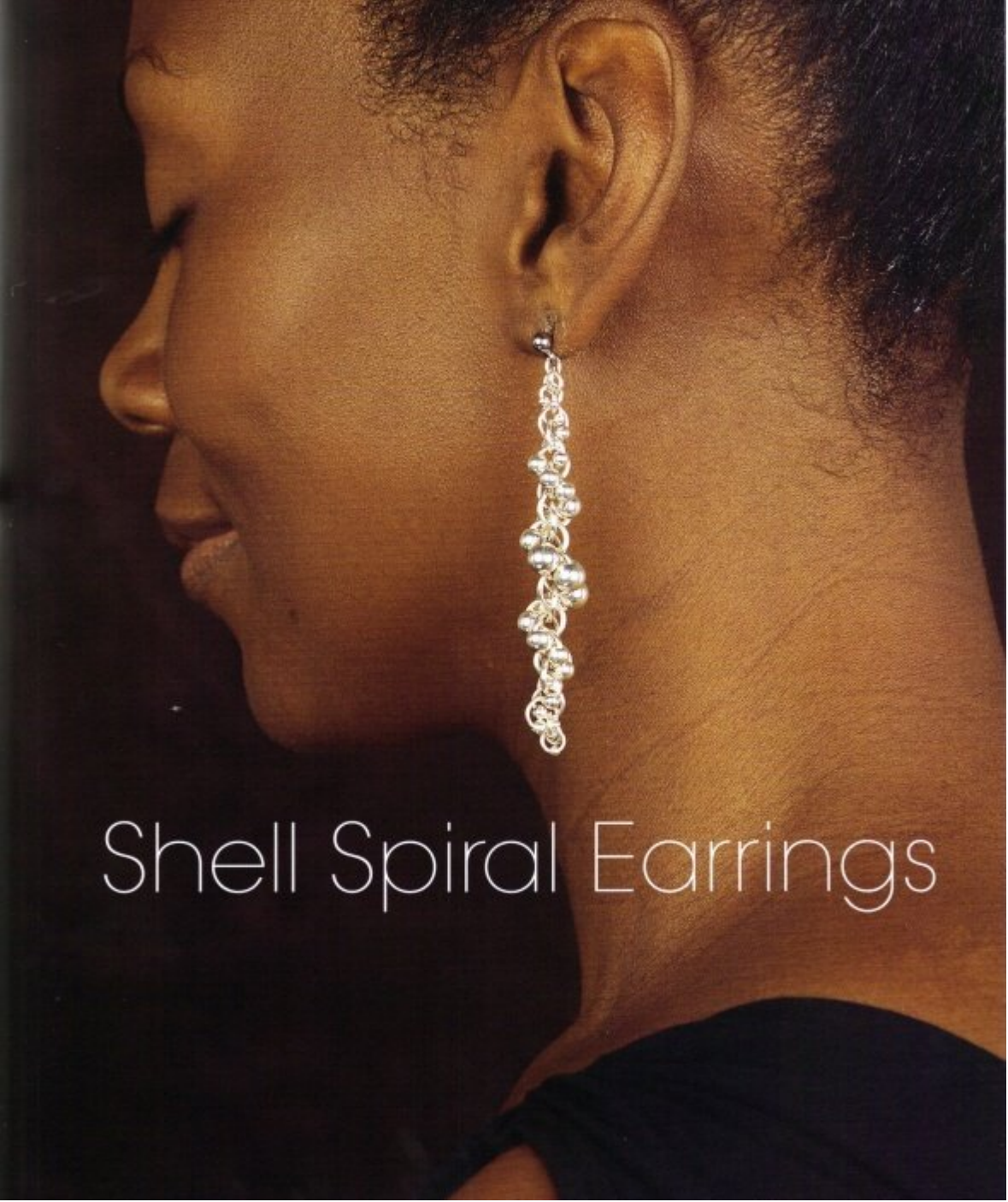


FIGURE 5

- 16 Following the basic instructions for creating Double Cable chain on page 24, create a short length of Double Cable chain that consists of five pairs of jump rings (D) connected by four pairs of jump rings (A).
- 17 One at a time, place and close two open jump rings (A) through both two closed jump rings (D) from one end of the short Double Cable chain created in step 16 and the closed jump ring (B) with four "E" beads from the other end of the chain. Make sure that the open jump rings (A) are added to the jump ring (B) at the next point between the "E" beads.
- 18 One at a time, place and close two open jump rings (A) through both the two closed jump rings (D) from step 17 and the same closed jump ring (B) with four "E" beads from the other end of the chain as step 17. Make sure that the open jump rings (A) are added to the jump ring (B) at the next point between the "E" beads, as illustrated in figure 6.



FIGURE 6



Shell Spiral Earrings



Reminiscent of silver sea shells, these dazzling spirals will showcase your chain mail skills to impressive effect.

Finished Size Approximately 3 inches (7.6 cm) long

MATERIALS

20-gauge sterling silver jump rings, as follows:

- 6 with a $\frac{7}{64}$ -inch ID (A)
- 12 with a $\frac{1}{8}$ -inch ID (B)
- 12 with a $\frac{3}{16}$ -inch ID (C)

18-gauge sterling silver jump rings, as follows:

- 12 with a $\frac{3}{16}$ -inch ID (D)
- 12 with a $\frac{7}{32}$ -inch ID (E)
- 6 with a $\frac{1}{4}$ -inch ID (F)

12 seamless sterling silver beads, 2 mm (G)

12 seamless sterling silver beads, 3 mm (H)

12 seamless sterling silver beads, 4 mm (I)

12 seamless sterling silver beads, 5 mm (J)

6 seamless sterling silver beads, 6 mm (K)

2 surgical stainless steel 4-mm ball posts with loops and butterfly nuts

INSTRUCTIONS

- 1 Open all the jump rings required for this project.
- 2 Following the basic instructions for adding beads to a Single Spiral pattern chain on page 26, create a beaded Single Spiral pattern chain as follows:
 - 6 Two jump rings (A)
 - 6 Three jump rings (B), each with a seamless silver bead (G)
 - 6 Three jump rings (C), each with a seamless silver bead (H)
 - 6 Three jump rings (D), each with a seamless silver bead (I)
 - 6 Three jump rings (E), each with a seamless silver bead (J)
 - 6 Three jump rings (F), each with a seamless silver bead (K)
 - 6 Three jump rings (E), each with a seamless silver bead (J)
 - 6 Three jump rings (D), each with a seamless silver bead (I)
 - 6 Three jump rings (C), each with a seamless silver bead (H)
 - 6 Three jump rings (B), each with a seamless silver bead (G)

- 3 Complete the earring by placing and closing an open jump ring (A) through both the two closed jump rings (A) from one end of the beaded Single Spiral chain, following the direction of the spiral, and the loop of a ball post (figure 1).



FIGURE 1

- 4 To create the second earring that is a mirror image of the first, repeat steps 2 and 3, reversing the direction of the spiral, as explained in the Single Spiral chain pattern instructions on page 24.



Dancing Bells Anklet



A lightweight Persian Star chain melds effortlessly with flashy bells to create a melodic anklet, perfect for dancing away the day on a sun-soaked beach.

Finished Size Approximately 9½ inches (24.1 cm) in circumference

MATERIALS

18-gauge stainless steel jump rings, as follows:

- 40 with a ¼-inch ID (A)
- 7 with a ⅜-inch ID (B)
- 49 with a ⅝-inch ID (C)

39 stainless steel jump rings, 20 gauge, ⅝-inch ID (D)

39 silver-plated bells, 6 mm

Stainless steel lobster clasp, 15 mm

INSTRUCTIONS

- 1 Close all 40 jump rings (A), four of the jump rings (B), 47 of the jump rings (C), and all 39 jump rings (D). Close the other three jump rings (B) and the last two jump rings (C).

- 2 Following the basic instructions for creating a Persian Star pattern chain on page 36, create a length of Persian Star chain that consists of 40 jump rings (A) and 40 jump rings (B).

- 3 Following the basic instructions for creating Cable pattern chains on page 23, construct a short adjustment chain from three closed jump rings (B) and six jump rings (C) in three sets of two jump rings each, one set loose at the end of the chain, as shown in figure 1.



FIGURE 1

- 4 Place and close an open jump ring (D) through both two closed jump rings (A) from one end of the Persian Star chain and a plated bell, as shown in figure 2.



FIGURE 2

- 5 Continue adding the remaining 38 plated bells to the Persian Star chain, attaching each to the chain using an open jump ring (D) that has been placed through two closed jump rings (A) from one side of the chain and closed, as shown in figure 3.



FIGURE 3



DESIGN TIP

With the exception of the first closed jump ring (A) from each end of the Persian Star chain, each closed jump ring (A) should have a total of two plated bells attached to it.

- 6 Place and close an open jump ring (B) through both the closed jump ring (C) from one end of the Persian Star chain and the two closed jump rings (C) from the end of the short adjustment chain prepared earlier.
- 7 Repeat the previous step, placing and closing a second open jump ring (B) through both the same closed jump ring (C) from one end of the Persian Star chain and the same two closed jump rings (C) from the end of the short adjustment chain. However, add this ring on the opposite side of the closed jump ring (A) from the same end of the Persian Star chain, pinning that jump ring (A) between the jump rings (B) added in this step and in the previous step, as shown in figure 4.



FIGURE 4

- 8 Place and close an open jump ring (B) through both the closed jump ring (C) from the opposite end of the Persian Star chain and two new closed jump rings (C).
- 9 Repeat the previous step, placing and closing a second open jump ring (B) through both the same closed jump ring (C) from the end of the Persian Star chain and the same two closed jump rings (C). However, add this ring on the opposite side of the closed jump ring (A) from the same end of the Persian Star chain, pinning that jump ring (A) between the jump rings (B) added in this step and the previous step.
- 10 Complete the anklet by placing and closing an open jump ring (B) through both the two closed jump rings (C) added in step 8 and the loop of a clasp (figure 5).



FIGURE 5



Chain Gang

The simple cable chain variation used here is perfect for creating a rugged yet stylish set of wallet, boot, and key chains.

CHAIN GANG VARIATION INSTRUCTIONS

- 1 Open all the jump rings required for the project.

- 2 Place and close an open stainless steel jump ring (A) through a barrel bead (figure 1).



FIGURE 1

- 3 Place and close an open bronze jump ring (B) through the same barrel bead as step 2 (figure 2).



FIGURE 2

- 4 Place and close a stainless steel jump ring (A) through both a new barrel bead and the barrel bead from step 2 (figure 3).



FIGURE 3

- 5 Place and close a bronze jump ring (B) through the same two barrel beads as the previous step, making sure that the bronze jump ring (B) is on the same side of the chain as the bronze jump ring (B) that was added in step 3 (figure 4).



FIGURE 4

- 6 Repeat steps 4 and 5 to continue your chain to the desired length.



Wallet Chain

Finished Size About 23 inches (58.4 cm)

MATERIALS

- 46 stainless steel jump rings, 18 gauge, $\frac{5}{16}$ -inch ID (A)
- 46 bronze jump rings, 18 gauge, $\frac{5}{16}$ -inch ID (B)
- 45 barrel beads, 6 mm long with 5-mm hole
- $\frac{3}{4}$ -inch split ring
- $\frac{5}{8}$ -inch scissor snap

INSTRUCTIONS

- 1 Open all 46 stainless steel jump rings (A) and all 46 bronze jump rings (B).
- 2 Following the Chain Gang Variation Instructions, create a length of chain that consists of 45 stainless steel jump rings (A), paired with 45 bronze jump rings (B) and 45 barrel beads.
- 3 Slide a split ring through the final barrel bead from one end of the chain, as shown in figure 5.



FIGURE 5



- 4 Place and close an open stainless steel jump ring (A) through both the final two jump rings (one stainless steel, one bronze) from the other end of the chain and the loop of a scissor snap.
- 5 Repeat step 4 a total of three more times with the remaining stainless steel jump ring (A) and the two remaining bronze jump rings (B), making sure that the two bronze jump rings (B) sit between the two stainless steel jump rings (A), as shown in figure 6.



FIGURE 6



Boot Chain

Finished Size 13½ inches (34.3 cm)

MATERIALS

- 30 stainless steel jump rings, 18 gauge, 5/16-inch ID (A)
- 30 bronze jump rings, 18 gauge, 5/16-inch ID (B)
- Stainless steel jump ring, 16 gauge, 5/16-inch ID (C)
- 30 barrel beads, 6 mm long with 5-mm hole
- Fold-over clasp, 4 x 13 mm

INSTRUCTIONS

- 1 Open all 30 stainless steel jump rings (A) and all 30 bronze jump rings (B).
- 2 Following the Chain Gang Variation Instructions on page 92 create a length of chain that consists of 30 stainless steel jump rings (A), paired with 30 bronze jump rings (B) and 30 barrel beads.
- 3 Place and close an open stainless steel jump ring (C) through both the final barrel bead from one end of the chain and the loop of a fold-over clasp. This clasp will attach to the final two jump rings (one stainless, one bronze) from the other end of the chain.



Key Chain

Finished Size 3½ inches (8.9 cm)

MATERIALS

- 6 stainless steel jump rings, 18 gauge, 5/16-inch ID (A)
- 6 bronze jump rings, 18 gauge, 5/16-inch ID (B)
- 7 barrel beads, 6 mm long with 5-mm hole
- 3/4-inch split ring

INSTRUCTIONS

- 1 Open all six stainless steel jump rings (A) and all six bronze jump rings (B).
- 2 Following the Chain Gang Variation Instructions on page 92, create a length of chain that consists of six stainless steel jump rings (A), paired with six bronze jump rings (B) and seven barrel beads. This means that unlike the basic technique, both ends of this chain will end with a barrel bead.
- 3 Slide a split ring through the final barrel bead from one end of the chain.



Flower Mail Choker
& Bracelet

Rows of cable chains connected in a hex create the Japanese pattern known as *Hana-Gusari* or *Flower Mail*. The bracelet in this set includes cobalt blue beads and blue O-rings, creating an even more floral array.

Choker

Finished Size Approximately 16 inches (40.6 cm) in circumference

MATERIALS

154 stainless steel jump rings, 20 gauge, $\frac{1}{8}$ -inch ID (A)

16-gauge bronze jump rings, as follows:

- 59 with a $\frac{1}{4}$ -inch ID (B)
- 3 with a $\frac{7}{32}$ -inch ID (C)

73 cobalt glass roller beads, 6 mm

Stainless steel lobster clasp, 15 mm

INSTRUCTIONS

- 1 Open all 154 jump rings (A), 53 of the jump rings (B), and all three jump rings (C). Close the other six jump rings (B).
- 2 One at a time, place and close 34 open jump rings (B) through one roller bead each.
- 3 One at a time, place and close 18 open jump rings (B) through two roller beads each.

- 4 One at a time, place and close three open jump rings (C) through one roller bead each.
- 5 Place and close an open jump ring (B) through the loop of a clasp.
- 6 One at a time, place and close two open jump rings (A) through two of the closed jump rings (B) with roller beads prepared in step 2.
- 7 One at a time, place and close two open jump rings (A) through both one of the closed jump rings (B) with a roller bead prepared in step 6 and a new closed jump ring (B) with a roller bead attached. Note that all of the roller beads should sit to the same side of the chain (figure 1).



FIGURE 1

- 8 Repeat step 7 a total of 31 more times to create a chain that consists of the 34 closed jump rings (B) with roller beads attached.



- 9 One at a time, place and close two open jump rings (A) through both the chain's first closed jump ring (B) with a roller bead and a closed jump ring (B) with two roller beads created in step 3, making sure that the roller bead on the closed jump ring (B) sits to the left of jump rings (A) being added, as shown in figure 2.



FIGURE 2

- 10 One at a time, place and close two open jump rings (A) through both the second closed jump ring (B) with a roller bead from the chain and the closed jump ring (B) with two roller beads added in step 9, making sure that the roller bead from the closed jump ring (B) sits to the right of the jump rings (A) being added, as shown in figure 3.



FIGURE 3

- 11 Repeat the process for adding closed jump rings (B) with two roller beads from steps 9 and 10 a total of 16 more times, each time using the next two closed jump rings (B) with roller beads from the chain as the attachment points.
- 12 Counting from left to right, locate the eighth closed jump ring (B) with two roller beads that was added to the chain in step 11. Between the two roller beads, one at a time, place and close two open jump rings (A) through both this jump ring and one of the closed jump rings (C) with a roller bead created in step 4.
- 13 Repeat step 12, except this time with the 10th closed jump ring (B) with two roller beads added to the chain during step 11.
- 14 Counting from left to right, locate the ninth closed jump ring (B) with two roller beads added to the chain during step 11. Between the two roller beads, one at a time, place and close two open jump rings (A) through both this jump ring (B) and the final closed jump ring (B) with two roller beads created in step 3.



Bracelet

Finished Size Approximately 7 inches (17.8 cm) in circumference

MATERIALS

- 168 stainless steel jump rings, 20 gauge, 1/8-inch ID (A)
- 36 bronze jump rings, 16 gauge, 1/4-inch ID (B)
- 11 blue neoprene O-rings, 16 gauge, 1/4-inch ID (C)
- 42 cobalt glass roller beads, 6 mm

INSTRUCTIONS

- 1 Open all 168 jump rings (A) and all 36 jump rings (B).
- 2 One at a time, place and close 30 open jump rings (B) through one roller bead each.
- 3 One at a time, place and close six open jump rings (B) through two roller beads each.

15 Between the two roller beads on the closed jump ring (B) added in step 14, one at a time, place and close two open jump rings (A) through this jump ring and the final closed jump rings (C) with a roller bead attached that was created in step 4.

16 One at a time, place and close two open jump rings (A) through both the final closed jump ring (B) with a roller bead from one end of the chain and the closed jump ring (B) with a clasp prepared in step 5, making sure that the roller bead on the closed jump ring (B) stays to the bead side of the chain.

17 One at a time, place and close two open jump rings (A) through both the final closed jump ring (B) with a roller bead from the other end of the chain and a new closed jump ring (B), making sure that the roller bead on the final closed jump ring (B) from this end of the chain stays to the bead side of the chain.

18 One at a time, place and close two open jump rings (A) through both the closed jump ring (B) added in the previous step and a new closed jump ring (B).

19 Repeat step 18 a total of four more times to complete an adjustment chain consisting of a total of six closed jump rings (B).

- 4 Repeat steps 6 and 7 of the choker instructions to create a chain that consists of the 30 closed jump rings (B) with roller beads created in step 2.

- 5 One at a time, place and close two open jump rings (A) through the first and last closed jump rings (B) with roller beads from the chain created in step 4, making sure that all of the roller beads sit to the same side of the continuous chain.

- 6 Lay out the continuous chain as shown in figure 4.



FIGURE 4

- 7 One at a time, place and close eight open jump rings (A) through both the four closed jump rings (B) with roller beads and a new closed jump ring (B) with two roller beads, as shown in figure 5.



FIGURE 5

- 8 Repeat step 7 a total of five more times (figure 6). Set this section of chain aside

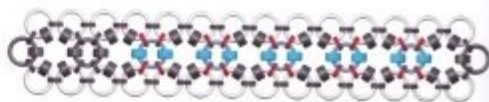


FIGURE 6

- 9 One at a time, place and close two open jump rings (A) through two neoprene O-rings (C).

- 10 One at a time, place and close two open jump rings (A) through both one of the neoprene O-rings (C) from step 9 and a new neoprene O-ring (C).

- 11 Repeat step 10 once to create a length of chain consisting of four neoprene O-rings (C).

- 12 Repeat steps 9, 10, and 11 to create a second length of chain consisting of four neoprene O-rings (C).

- 13 Repeat steps 9 and 10 to create a third length of chain consisting of three neoprene O-rings (C).

- 14 Lay out the three lengths of chain completed in steps 9 through 13 as shown in figure 7.



FIGURE 7

- 15 One at a time, place and close 24 open jump rings (A) through the three neoprene O-ring (C) chains in pairs, as shown in figure 8, to create a small piece of Hana-Gusari chain.

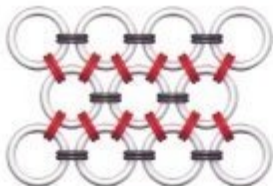


FIGURE 8

- 16 Place the piece of neoprene Hana-Gusari chain between the ends of the bronze and bead chain set aside in step 8, as shown in figure 9.



FIGURE 9

- 17 One at a time, place and close 20 open jump rings (A) through the neoprene O-rings and closed jump rings (B) in pairs, as shown in figure 10, to complete the bracelet as a continuous loop.



FIGURE 10





Cable Cross Bracelet & Earrings

Topaz beads make this subtle and sunny
bi-metal bracelet and earring set a
perfect gift for a November birthday.

Bracelet

Finished Size Approximately 8 inches (20.3 cm) in circumference

MATERIALS

- 138 sterling silver jump rings, 21 gauge, $\frac{3}{32}$ -inch ID (A)
- 7 gold-filled jump rings, 16 gauge, $\frac{9}{32}$ -inch ID (B)
- 12 gold-filled jump rings, 18 gauge, $\frac{5}{32}$ -inch ID (C)
- 1 sterling silver jump ring, 18 gauge, $\frac{1}{8}$ -inch ID (D)
- 14 topaz glass roller beads, 6 mm (E)
- 16 silver-lined topaz glass "E" beads, size 6/0 (F)
- Gold-filled lobster claw clasp, 11.7 mm

INSTRUCTIONS

- 1 Open 80 of the jump rings (A), all seven jump rings (B), eight of the jump rings (C), and the one jump ring (D). Close the other 58 jump rings (A) and the four remaining jump rings (C).
- 2 Following the basic directions for creating Double Cable chain on page 24, create seven lengths of Double Cable chain that consist of a total of seven jump ring (A) pairs each.

- 3 Place and close an open jump ring (B) through both the second and sixth jump ring pair from a Double Cable chain created in step 2 and two roller beads (E), as shown in figure 1.



FIGURE 1

- 4 Repeat step 3 with the remaining six Double Cable chains created in step 2 to create a total of seven Double Cable sections.
- 5 One at a time, place a total of eight open jump rings (C) through two beads (F) each. Close the jump rings.
- 6 One at a time, place and close two open jump rings (A) through both the pair of closed jump rings (A) from one end of a Double Cable section completed in step 4 and one of the closed jump rings (C) with two beads created in step 5.
- 7 One at a time, place and close two open jump rings (A) through both the pair of closed jump rings (A) from the other end of the Double Cable section added to in step 6 and one of the closed jump rings (C) with beads (F) created in step 5.



- 8 One at a time, place and close two open jump rings (A) through both the pair of closed jump rings (A) from the end of a new Double Cable section completed in step 4 and the closed jump rings (C) with two beads added in step 7. Make sure that the jump rings added sit between the two beads on the closed jump ring (C) and that the jump ring (B) on the Double Cable section being added is on the same side of the chain as the original Double Cable section from step 6, as shown in figure 2.



FIGURE 2

- 9 Repeat steps 7 and 8 a total of five more times, adding the closed jump rings (C) with two beads (F) created in step 4 and the Double Cable sections completed in step 4, in turn.
- 10 Repeat step 7 one more time, ending the chain with a closed jump ring (C) with two beads (F) attached.

- 11 One at a time, place and close two open jump rings (A) through both the closed jump rings (C) with two beads (F) added in step 10 and a closed jump ring (C), making sure that the jump rings added sit between the two beads (F) on the closed jump ring (C).
- 12 One at a time, place and close two open jump rings (A) through both the closed jump ring (C) added in step 11 and a new closed jump ring (C).
- 13 Repeat step 12 twice more to finish the adjustment chain on this end of the bracelet.
- 14 On the opposite end of the chain, one at a time, place and close two open jump rings (A) through two closed jump rings (A).
- 15 Finish the bracelet by placing and closing the open jump ring (D) through both the two closed jump rings (A) added in step 14 and the loop of a clasp.



Earrings

Finished Size Approximately 1 1/2 inches (3.8 cm) long

MATERIALS

- 48 sterling silver jump rings, 21 gauge,
3/32-inch ID (A)
- 2 gold-filled jump rings, 16 gauge, 9/32-inch ID (B)
- 2 gold-filled jump rings, 18 gauge, 5/32-inch ID (C)
- 2 topaz glass roller beads, 6 mm (D)
- 2 silver-lined topaz glass "E" beads, size 6/0 (E)
- 2 stainless steel French hooks

INSTRUCTIONS

- 1 Open 24 of the jump rings (A), both jump rings (B), and both jump rings (C). Close the other 24 jump rings (A).
- 2 Following the basic directions for creating Double Cable Chain on page 24, create a length of Double Cable chain that consists of a total of nine jump ring (A) pairs.
- 3 Place and close an open jump ring (B) through both the second and sixth jump ring pair from a Double Cable chain created in step 2 and two roller beads (D), in the same manner as step 3 of the bracelet instructions.
- 4 Place and close an open jump ring (C) through two beads (E).

- 5 One at a time, place and close two open jump rings (A) through both the pair of closed jump rings (A) from the short end of the Double Cable section completed in step 3 and the closed jump ring (C) with two beads (E) created in step 4, shown in figure 3.



FIGURE 3

- 6 One at a time, place and close two open jump rings (A) through the closed jump rings (C) with two beads (E), added in step 5, making sure that the jump rings being added sit between the two beads (E) on the closed jump ring (C).
- 7 One at a time, place and close two open jump rings (A) through both the two closed jump rings (C) added in step 6 and the loop of a French hook.
- 8 Repeat steps 2 through 7 to create a second identical earring.





Red Carpet
Cable Set

To make this three-piece set, you employ a technique to create an offset cable that is basically a bias-cut slice of European chain with a finely beaded edge.

OFFSET CABLE TECHNIQUE INSTRUCTIONS

- 1 Open all the jump rings required for the project, except where you are specifically instructed to close rings for adjustment chains, etc.

- 2 Place and close one-quarter of the jump rings required for the project through beads appropriate to the dimensions of the jump rings (figure 1). See page 15 for specific size information.



FIGURE 1

- 3 Place and close an open jump ring through two of the jump rings with beads prepared in step 2 and through a new bead (figure 2).



FIGURE 2

- 4 Place and close an open jump ring through one of the end jump rings with beads from step 3, a new jump ring with bead that was prepared in step 1, and a new bead (figure 3).



FIGURE 3

- 5 Newly added beads must sit to the same side of the cable chain as each other. The beads added on jump rings prepared in step 2 must sit to the same side of the cable chain as each other (figure 3). Make sure neither spirals around the cable chain as in figure 4, which shows a bead that has mistakenly slipped.



FIGURE 4

- 6 Repeat the process of step 4, placing and closing open jump rings through the end jump rings with beads of the main cable chain, new jump rings with beads, and new beads until all of the jump rings with beads prepared in step 2 have been used to create the main cable chain (figure 5).



FIGURE 5



- 7 Returning to the start of the main cable chain, place and close an open jump ring through the end jump ring with a bead added in step 6, the jump ring from the main cable chain and then a new bead (figure 6).



FIGURE 6

- 9 Place and close an open jump ring through the jump ring with bead added in step 8, the jump ring from the main cable chain as indicated in the illustration, and a new bead. The correct placement of the added bead is on the edge of the chain, as in figure 8.



FIGURE 8

- 8 Place and close an open jump ring through the jump ring with a bead added in step 7, the jump ring from the main cable chain as indicated in the illustration, and a new bead. The correct placement of the added bead is on the edge of the chain, as in figure 7.



FIGURE 7

- 10 Continue the process of adding new jump rings and beads as in steps 8 and 9 until the entire length of the main cable chain has been doubled into an offset cable chain.



Bracelet

Finished Size Approximately 8½ inches (21.6 cm) in circumference

MATERIALS

- 72 sterling silver jump rings, 16 gauge, 7/32-inch ID (A)
- 8 sterling silver jump rings, 18 gauge, 1/8-inch ID (B)
- 67 silver-lined crystal, square-holed glass beads, size 2/0
- 1 sterling silver lobster claw clasp, 8 x 4 mm

INSTRUCTIONS

- 1 Open the 72 jump rings (A), and close the eight jump rings (B).
- 2 Prepare 17 jump rings (A) by placing and closing each one through a bead.
- 3 Using the prepared jump rings (A) with beads from step 2, follow steps 3 through 5 of the Offset Cable Technique Instructions on page 107 to create a main cable chain that is 33 closed jump rings with beads in length.

- 4 Follow steps 6 through 10 of the basic Offset Cable technique to create an offset cable chain that is a total of 66 closed jump rings (A) with beads in length.
- 5 Place and close an open jump ring (A) through both closed jump rings (A) from one end of the offset cable chain and the loop of a clasp (figure 9).



FIGURE 9

- 6 Place and close an open jump ring (A) through both closed jump rings (A) from the other end of the offset cable chain and two closed jump rings (B) (figure 10).



FIGURE 10



- 7 Create a short adjustment chain by placing and closing an open jump ring (A) through both the two closed jump rings (B) added in the previous step and two new closed jump rings (B) a total of three times.
- 8 Finish the short adjustment chain and bracelet by placing and closing an open jump ring (A) through the final two closed jump rings (B) added in the previous step and through a single bead (figure 11).



FIGURE 11

Choker

Finished Size Approximately 14 inches (35.6 cm) in circumference

MATERIALS

- 164 sterling silver jump rings, 18 gauge, $\frac{5}{32}$ -inch ID (A)
- 8 spring hard sterling silver jump rings, 21 gauge, $\frac{3}{32}$ -inch ID (B)
- 158 silver-lined crystal, square-hole glass beads, size 6/0
- 1 sterling silver lobster claw clasp, 8 x 4 mm

INSTRUCTIONS

- 1 Open all 164 jump rings (A), and close the eight jump rings (B).
- 2 Prepare 40 jump rings (A) by placing and closing each one through a bead.

- 3 Using the prepared jump rings (A) with beads from step 2, follow steps 3 through 5 of the Offset Cable Technique Instructions on page 107 to create a main cable chain that is 79 closed jump rings (A) with beads in length.
- 4 Follow steps 6 through 10 of the basic Offset Cable technique to create an offset cable chain that is a total of 158 closed jump rings (A) with beads in length.
- 5 Place and close an open jump ring (A) through two closed jump rings (A) from one end of the Offset Cable chain and the loop of a clasp (figure 9).
- 6 Place and close an open jump ring (A) through two closed jump rings (A) from the other end of the Offset Cable chain and two closed jump rings (B). See figure 10.
- 7 Create a short adjustment chain by placing and closing an open jump ring (A) through both the two closed jump rings (B) added in the previous step and two new closed jump rings (B) a total of three times.
- 8 Finish the short adjustment chain and choker by placing and closing an open jump ring (A) through both the final two closed jump rings (B) added in the previous step and a single bead (figure 11).

Earrings

Finished Size Approximately 1½ inches (3.8 cm) long

MATERIALS

21-gauge spring hard sterling silver jump rings, as follows:

- 46 with a ⅛-inch ID (A)
- 2 with a ⅜-inch ID (B)

46 silver-lined crystal, square-hole glass beads, size 8/0

2 surgical stainless steel 4-mm ball posts with loops and butterfly nuts

- 1 Open the 46 jump rings (A) and the two jump rings (B).
- 2 Prepare six jump rings (A) by placing and closing each one through a bead.



- 3 Using the prepared jump rings (A) with beads from step 2, follow steps 3 through 5 of the Offset Cable Technique Instructions on page 107 to create a main cable chain that is 11 closed jump rings (A) with beads in length.
- 4 Follow steps 6 through 10 of the basic Offset Cable technique to create an offset cable chain that is a total of 22 closed jump rings (A) with beads in length.
- 5 Place and close an open jump ring (A) through two closed jump rings (A) from one end of the offset cable chain and a new bead (figure 12).



FIGURE 12

- 6 Finish the earring by placing and closing an open jump ring (B) through both two closed jump rings (A) from the other end of the offset cable chain and the loop of a ball post (figure 13).

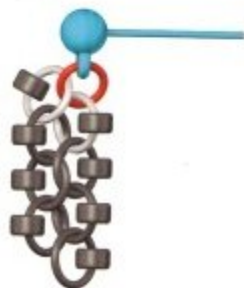


FIGURE 13

- 7 To create the second earring as a mirror image of the first, follow steps 2 through 6, except that during step 5, place and close the open jump ring (A) through the opposite end of the offset cable chain before adding the new bead.



Grape Leaf Earrings

Fine earrings with a simple design, these inverted triangles are reminiscent of grape leaves in autumn.



Finished Size Approximately 1 1/4 inches (3.2 cm) long

MATERIALS

- 2 sterling silver jump rings, 16 gauge, 9/32-inch ID (A)
- 92 spring hard sterling silver jump rings, 21 gauge, 3/32-inch ID (B)
- 34 garnet glass seed beads, size 11/0
- 2 surgical stainless steel 4-mm ball posts with loops and butterfly nuts

INSTRUCTIONS

- 1 Open both large jump rings (A) and 78 of the small jump rings (B). Close the remaining 14 small jump rings (B).
- 2 One at a time, place and close two small jump rings (B) through one seed bead each.

- 3 Place and close a large jump ring (A) through the two small jump rings (B) with seed beads prepared in step 2 and seven closed small jump rings (B). You should add these small jump rings in this order: one small jump ring (B) with a seed bead attached, seven closed small jump rings (B), and then the other small jump ring (B) with a seed bead, as shown in figure 1.

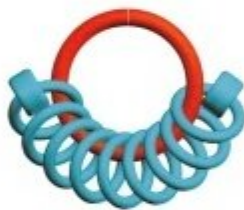


FIGURE 1

- 4 Following the instructions for the basic European 1 in 4 pattern on page 28 (with the exception of adding a single new row at a time by not adding any closed rings during steps 5 and 6 of the basic European 1 in 4 pattern), use the nine small closed jump rings (B) added in step 3, two new seed beads, and eight new open small jump rings (B) as the base to create a new row consisting of eight small jump rings (B). Each row begins and ends with a small jump ring (B) with a seed bead, as shown in figure 2.



FIGURE 2

- 5 Repeat the previous step a total of six more times, adding a total of six more rows to the earring, with each row consisting of one fewer small jump ring (B) each time the step is repeated. Always begin and end by closing the small jump ring (B) through a new seed bead as well as through the two small jump rings (B) from the main pattern.
- 6 Place and close a final small open jump ring (B) through both the two small jump rings (B) with seed beads added during the final part of step 5 and a new seed bead.
- 7 Finish the earring by placing and closing a small open jump ring (B) through both the large jump rings (A) and the loop of a ball post.
- 8 To create the second earring, follow steps 2 through 7, except that base rows of small closed jump rings (B) attached in step 3 should overlap in the opposite direction of the base rows of the first earring (figure 3).



FIGURE 3



Bronze Age Bolo Tie



Here's a bronze chain tie that's just the thing for any man who's looking for something different, yet classy.

Finished Size Approximately 40 inches (101.6 cm) in length

Wrapped Donut

MATERIALS

20-gauge stainless steel jump rings, as follows:

- 126 with a $\frac{7}{64}$ -inch ID (A)
- 30 with a $\frac{5}{32}$ -inch ID (B)

30 bronze jump rings, 18 gauge, $\frac{5}{32}$ -inch ID (C)

2 bronze jump rings, 16 gauge, $\frac{5}{16}$ -inch ID (D)

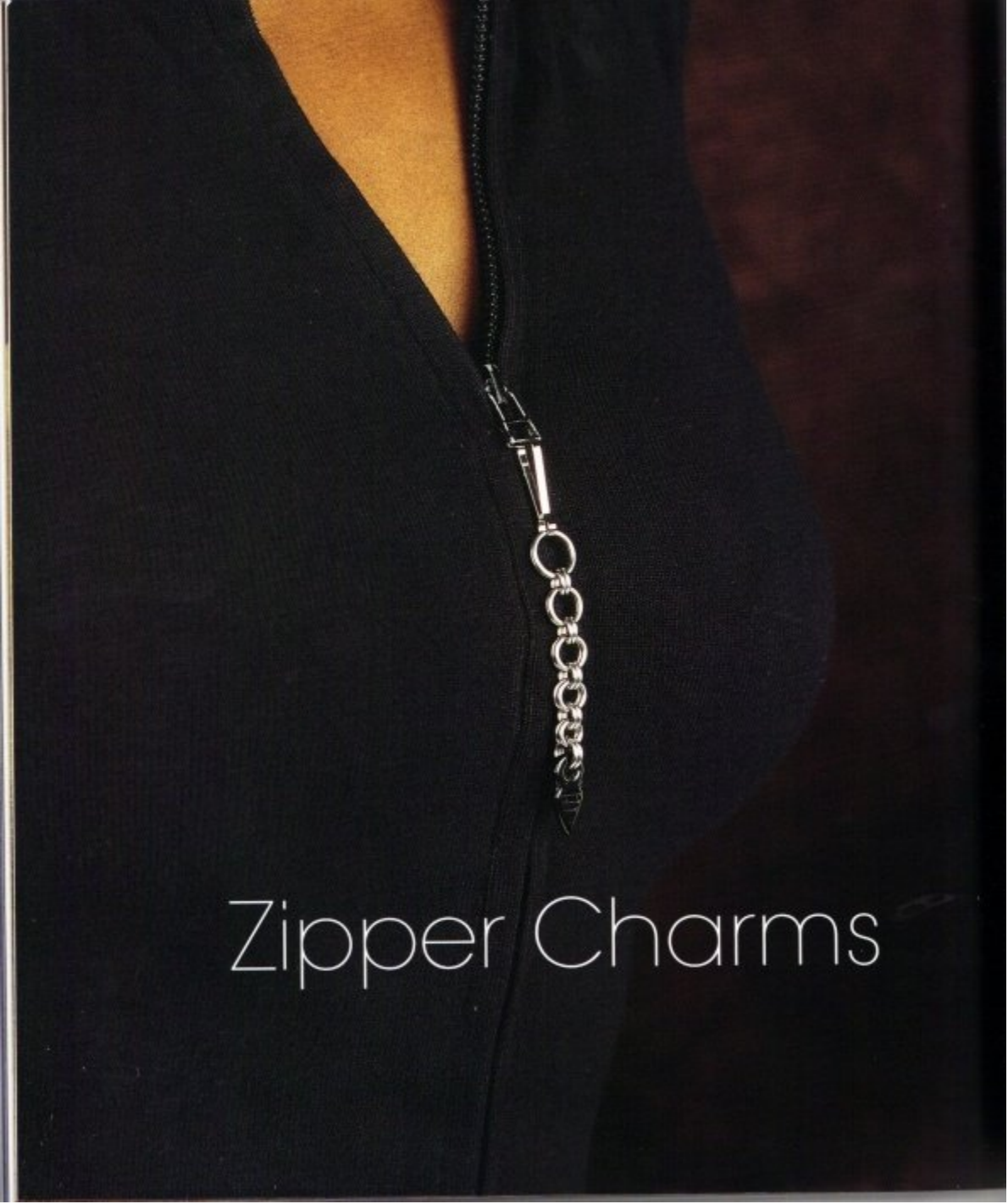
1 "tiger iron" gemstone donut, 40 mm

INSTRUCTIONS

- 1 Open all 126 jump rings (A) and the two jump rings (D). Close all 30 jump rings (B) and all 30 jump rings (C).
- 2 One at a time, place and close two open jump rings (A) through two closed jump rings (C).
- 3 One at a time, place and close two open jump rings (A) through both one of the closed jump rings (C) from step 2 and a new closed jump ring (C).
- 4 Repeat step 3 a total of 12 more times to create a length of cable chain that is 15 jump rings (C) in length, held together by 14 jump ring (A) pairs.
- 5 Repeat steps 2 through 4 to create a second identical length of cable chain.
- 6 One at a time, place and close two open jump rings (A) through both the first closed jump ring (C) from the end of one of the Double Cable chains and two closed jump rings (B).
- 7 One at a time, place and close two open jump rings (A) through both the two closed jump rings (B) from step 6 and the first closed jump ring (C) from the end of the other Double Cable chain, as shown in figure 1.



FIGURE 1



Zipper Charms

These saucy little pieces, shown here in four patterns, are perfect for dressing up anything from jackets to purses. In winter, they make it easy to pull up zippers while wearing mittens.

Double Cable Zipper Pull

Finished Size Approximately 2½ inches (6.4 cm) long without the hook

MATERIALS

18-gauge stainless steel jump rings, as follows:

- 2 with a 5/16-inch ID (A)
- 2 with a 1/4-inch ID (B)
- 2 with a 7/32-inch ID (C)
- 4 with a 3/16-inch ID (D)
- 10 with a 5/32-inch ID (E)

Black triangular glass hair pendant bead
(also known as *Talhakim* or *Taunfaulk* beads),
18 mm

Spring steel lanyard hook, 20–23 x 6 mm

INSTRUCTIONS

- 1 Open two jump rings (D) and eight of the jump rings (E). Close both jump rings (A), both jump rings (B), both jump rings (C), the last two jump rings (D), and the last two jump rings (E).

- 2 Following the basic instructions for creating a Double Cable pattern chain on page 24, create a length of Double Cable chain that consists of five pairs of jump rings (A, B, C, D, and E), connected together in order of descending size by four pairs of jump rings (E) as shown in figure 1.



FIGURE 1

- 3 One at a time, place and close two open jump rings (D) through both the two closed jump rings (E) from one end of the Double Cable chain and the triangular bead.
- 4 Complete the zipper pull by attaching the lanyard hook through the two closed jump rings (A) from the opposite end of the Double Cable chain (figure 2).



FIGURE 2



Persian Star Zipper Pull

Finished Size Approximately 1½ inches (3.8 cm) long without the hook

MATERIALS

18-gauge stainless steel jump rings, as follows:

2 with a 5/16-inch ID (A)

5 with a 1/4-inch ID (B)

2 with a 3/16-inch ID (C)

5 with a 5/32-inch ID (D)

Capri glass crow bead, 9 x 6 mm

Spring steel lanyard hook,
20–23 x 6 mm

INSTRUCTIONS

- 1 Open all the jump rings (A to D) you'll need to complete this project.
- 2 Following the basic instructions for creating a Persian Star pattern chain on page 36, create a length of Persian Star chain that consists of five jump rings (B) and five jump rings (D), as shown in figure 3.



FIGURE 3

- 3 Place and close an open jump ring (A) through both the closed jump ring (D) from one end of the Persian Star chain and a crow bead (figure 4).



FIGURE 4

- 4 Repeat the previous step, placing and closing a second open jump ring (A) through the same closed jump ring (D) from one end of the Persian Star chain and the same crow bead. However, add this ring on the opposite side of the closed jump ring (B) from the same end of the Persian Star chain, pinning the jump ring (B) between the jump rings (A) added in this step and in the previous step, as shown in figure 5.



FIGURE 5

- 5 Place and close an open jump ring (C) through the closed jump ring (D) from the opposite end of the Persian Star chain and the lanyard hook (figure 6).



FIGURE 6

- 6 Complete the zipper pull by repeating the previous step, placing and closing a second open jump ring (C) through the same closed jump ring (D) from one end of the Persian Star chain and the same lanyard hook. However, add this ring on the opposite side of the closed jump ring (B) from the same end of the Persian Star chain, pinning the jump ring (B) between the jump rings (D) added in this step and in the previous step, as shown in figure 7.



FIGURE 7

Double Spiral Zipper Pull

Finished Size Approximately 1½ inches (3.8 cm) long without the hook

MATERIALS

18-gauge stainless steel jump rings, as follows:

- 1 with a 5/16-inch ID (A)
- 20 with a 7/32-inch ID (B)

3 green lustre glass roller beads, 6 x 4 mm

Spring steel lanyard hook, 20–23 x 6 mm



INSTRUCTIONS

- 1 Open the one jump ring (A) and 18 of the jump rings (B). Close the last two jump rings (B).
- 2 Following the basic instructions for creating a Double Spiral pattern chain on page 26, create a length of Double Spiral chain that consists of 20 closed jump rings (B) in 10 pairs, as shown in figure 8.



FIGURE 8

- 3 Following the twist of the Double Spiral chain, place and close an open jump ring (A) through the four closed jump rings (B) from one end of the Double Spiral chain and three roller beads.
- 4 Complete the zipper pull by attaching the lanyard hook through the four closed jump rings (B) from the opposite end of the Double Spiral chain, following the twist of the Double Spiral chain (figure 9).



FIGURE 9

Rings of Saturn Zipper Pull

Finished Size Approximately 1¾ inches (4.4 cm) long without the hook

MATERIALS

18-gauge stainless steel jump rings, as follows:

- 4 with a 5/16-inch ID (A)
- 16 with a 3/16-inch ID (B)

2 red lustre glass crow beads, 9 mm

Spring steel lanyard hook, 20-23 x 6 mm

INSTRUCTIONS

- 1 Open three of the jump rings (A) and nine of the jump rings (B). Close the last jump ring (A) and seven other jump rings (B).
- 2 Following the basic instructions for creating a Rings of Saturn pattern chain on page 33, create a length of Rings of Saturn chain that consists of three jump rings (A) and 16 jump rings (B), as shown in figure 10. Note that this Rings of Saturn pattern chain is missing a jump ring (B) that would normally complete one end of the chain.



FIGURE 10

- 3 Place and close an open jump ring (A) through the two closed jump rings (B) from the end of the Rings of Saturn chain noted in step 2 and two crow beads (figure 11). Note that this replaces the missing jump ring (B) from the end of the chain.

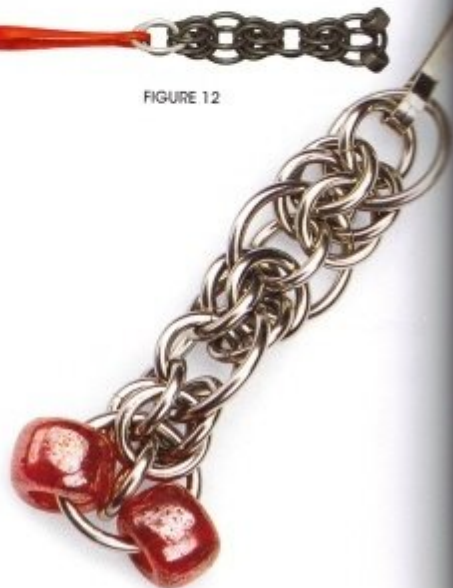


FIGURE 11

- 4 Complete the zipper pull by attaching the lanyard hook through the closed jump ring (A) and the closed jump ring (B) from the opposite end of the Rings of Saturn chain (figure 12).



FIGURE 12



Andromeda Necklace





This attention-grabbing, multi-tiered necklace is a perfect showcase for the most spectacular focal beads you can find.

Finished Size Approximately 16 inches (40.6 cm) circumference around the neck

MATERIALS

18-gauge sterling silver jump rings, as follows:

- 348 with a $\frac{5}{32}$ -inch ID (A)
- 54 with a $\frac{3}{16}$ -inch ID (B)
- 76 with a $\frac{7}{32}$ -inch ID (C)
- 88 with a $\frac{1}{4}$ -inch ID (D)
- 6 with a $\frac{5}{16}$ -inch ID (E)

20-gauge sterling silver jump rings, as follows:

- 44 (approximately) with a $\frac{3}{32}$ -inch ID (F)
- 8 with a $\frac{7}{64}$ -inch ID (G)

2 to 4 large focal beads, minimum hole size
4.5 mm, 1 to 1½ inch (2.5 to 3.8 cm) in length

Sterling silver infinity clasp, 13 x 7 mm

INSTRUCTIONS

1 Open 290 of the jump rings (A), two of the jump rings (B), six of the jump rings (D), 20 of the jump rings (F), and six of the jump rings (G). Close the other 58 jump rings (A), the last 52 jump rings (B), all 76 jump rings (C), the remaining 82 jump rings (D), all six jump rings (E), the other 24 jump rings (F), and the last two jump rings (G).



DESIGN TIP

Always remember that lampworking and chain making go hand in hand! A lampworking friend of mine, who wishes to remain anonymous, created these Galaxy Swirl Beads especially for me. Don't be afraid to commission specialty focal beads of your own or track down focal bead substitutions; just make sure that your focal beads have at least a 4.5-mm hole. If they don't, you will have to use a bead reamer to enlarge the hole to a point where you can fit a chain through.

2 Following the directions on page 24, create the following Double Cable chains:

- Two Double Cable chains consisting of 18 pairs of jump rings (D), connected by 17 pairs of jump rings (A). Mark these Double Cable chains as (Z).
- Two Double Cable chains consisting of 15 pairs of jump rings (C), connected by 14 pairs of jump rings (A). Mark these Double Cable chains as (Y).
- Two Double Cable chains consisting of 10 pairs of jump rings (B) and ending with a pair of jump rings (C), connected by 10 pairs of jump rings (A). Mark these Double Cable chains as (X).



- One Double Cable chain of the following pattern of jump ring pairs, connected by a total of 47 pairs of jump rings (A):

- Jump ring pair (E)
- Jump ring pair (D)
- Jump ring pair (C)
- Jump ring pair (B)
- Seven jump ring pairs (A)
- Jump ring pair (B)
- Jump ring pair (C)
- Jump ring pair (D)
- Jump ring pair (E)
- Jump ring pair (D)
- Jump ring pair (C)
- Jump ring pair (B)
- 15 jump ring pairs (A)
- Jump ring pair (B)
- Jump ring pair (C)
- Jump ring pair (D)
- Jump ring pair (E)
- Jump ring pair (D)
- Jump ring pair (C)
- Jump ring pair (B)
- Seven jump ring pairs (A)
- Jump ring pair (B) through the loop of a clasp

- Mark this Double Cable chain as (W) and place temporary ring markers on the following jump ring pairs: 15th (E), 16th (D), 17th (C), 27th (A), 36th (D), 37th (E), and 38th (D).

- One Double Cable chain consisting of a pair of jump rings (B), connected to a pair of jump rings (C) by a pair of jump rings (A). Mark this Double Cable chain (V).

- Two Double Cable chains consisting of pairs of jump rings (F). These Double Cable chains should be just long enough to reach through the vertical length of the holes in the large focal beads, as in Figure 1, or two large focal beads stacked together. It needs approximately 11 jump ring (F) pairs. Mark these Double Cable chains (U).



DESIGN TIP

If you simply cannot locate focal beads with large enough holes to fit these Double Cable chains through, it is perfectly acceptable to replace the Double Cable chains (U) with lengths of finer chain or even, as a last resort, a length of wire with wrapped loops at each end.

- One at a time, place and close two open jump rings (G) through the pair of closed jump rings (F) from the end of one of the Double Cable chains (U).
- One at a time, place and close two open jump rings (D) through the pair of jump rings (G) added in step 3.
- Feed the Double Cable chain (U) from steps 3 and 4 through the hole of one or two large focal beads. Note that you may have to add or remove jump ring (F) pairs to make sure that the Double Cable chain (U) is the correct length to reach through the large focal bead.
- One at a time, place and close two open jump rings (G) through the pair of jump rings (F) from the Double Cable chain (U) fed through the large focal bead in step 5. Note that the jump rings (G) added during this step should be as close to the large focal bead as possible.
- One at a time, place and close two open jump rings (D) through the pair of jump rings (G) added in step 6. Note that this will lock the Double Cable chain (U) in place inside the large focal bead.
- One at a time, place and close two open jump rings (G) through both the pair of jump rings (D) added in step 7 and the pair of jump rings (F) from one end of the second Double Cable chain (U).
- Repeat steps 5 through 7, feeding the second Double Cable chain (U) through one or two new large focal beads and locking it in place.
- One at a time, place and close two open jump rings (A) through both the 27th jump ring pair (A) of the Double Cable chain (W) and the closed jump ring (B) pair from the Double Cable chain (V).
- One at a time, place and close two open jump rings (A) through both the closed jump ring (C) pair from the Double Cable chain (V) and the top closed jump ring (D) pair from one end of the cable and bead combination created in steps 5 through 9.



DESIGN TIP

If you have trouble feeding the Double Cable chain (U) through the large focal bead, it may be helpful to tie a string or thread to the end of the Double Cable chain (U) to feed through the large focal bead first (figure 1).



FIGURE 1

12 One at a time, place and close two open jump rings (A) through both the closed jump ring (B) pair from one end of the Double Cable chains (X) and the 17th jump ring (C) pair from the Double Cable chain (W).

13 One at a time, place and close two open jump rings (A) through both the closed jump ring (C) pair from the other end of the Double Cable chain (X) from step 12 and the left side of the top closed jump ring (D) pair attached in step 11.

14 Repeat steps 12 and 13 with the second Double Cable chain (X), the 36th jump ring (D) pair from the Double Cable chain (W), and the right side of the top closed jump ring (D) pair attached to in step 11.

15 One at a time, place and close two open jump rings (A) through both the closed jump ring (C) pair from one end of the Double Cable chains (Y) and the 18th jump ring (B) pair from the Double Cable chain (W).

16 One at a time, place and close two open jump rings (A) through both the closed jump ring (C) pair from the other end of the Double Cable chain (Y) from step 15 and the left side of the middle jump ring pair (D) added to the cable and bead combination in step 7.

17 Repeat steps 15 and 16 with the second Double Cable chain (Y), the 37th jump ring (E) pair from the Double Cable chain (W), and the right side of the middle jump ring pair (D) added to the cable and bead combination in step 7.

18 One at a time, place and close two open jump rings (A) through the closed jump ring (D) pair from one end of the Double Cable chains (Z) and the 19th jump ring (A) pair from the Double Cable chain (W).

19 One at a time, place and close two open jump rings (A) through both the closed jump ring (D) pair from the other end of the Double Cable chain (Z) from step 18 and the left side of the bottom jump ring pair (D) added to the cable and bead combination in step 4.

20 Repeat steps 18 and 19 with the second Double Cable chain (Z), the 38th jump ring (D) pair from the Double Cable chain (W), and the right side of the bottom jump ring pair (D) added to the cable and bead combination in step 4.





Orbital Earring Collection

This easy adaptation of the Single Cable chain pattern gives you a myriad of options for creating cool beaded earrings. This set highlights three different alternatives.

ORBITAL CABLE TECHNIQUE INSTRUCTIONS

Note that you will need jump rings to create this chain with a large enough inner diameter so that when you place two closed rings together, as illustrated in step 2, you can see enough of the vertical jump ring to place a new open jump link through.

- 1 Close three jump rings, and open two jump rings.

- 2 Place two closed jump rings together as illustrated, with one of the jump rings vertical and one horizontal (figure 1).



FIGURE 1

- 3 Place and close an open jump ring through the closed vertical jump ring from step 2, as shown in figure 2, pinning the horizontal closed jump ring between the closed vertical jump ring and the jump ring you are adding during this step.



FIGURE 2

- 4 Place a closed jump ring horizontally against the jump ring that you added in step 3, as illustrated in figure 3.



FIGURE 3

- 5 Place and close a new open jump ring through the jump ring added in step 3, as shown in figure 4, pinning the horizontal closed jump ring from step 4 between the jump ring added in step 3 and the jump ring you are adding during this step. Note that the ring ratio to continue this pattern is one open jump ring to one closed jump ring.



FIGURE 4

- 6 Repeat steps 4 and 5 to continue the pattern to the desired length.

Zircon Nebula Earrings

Finished Size About 1 1/4 inch (3.2 cm)

MATERIALS

- 14 sterling silver jump rings, 16 gauge, 9/32-inch ID (A)
- 12 blue zircon glass roller beads, 6 mm (B)
- 14 teal translucent glass roller beads, 6 mm (C)
- 2 surgical stainless steel French hooks

INSTRUCTIONS

- 1 Open all 14 jump rings (A).
- 2 One at a time, place and close three jump rings (A) through two roller beads (B) each.
- 3 Place and close a jump ring (A) through three roller beads (C).
- 4 Place a closed jump ring (A) with two roller beads (B) created in step 2 horizontally against the closed jump ring (A) with two roller beads (C) added in step 5, with one roller bead (C), as shown in figure 5.



FIGURE 5

- 5 Place and close an open jump ring (A) through both the closed jump ring (A) with three roller beads (C) created in step 3 and two new roller beads (C), pinning the closed jump ring (A) with two roller beads (B) from step 4 in place with one roller bead (B) to each side, as shown in figure 6.



FIGURE 6

- 6 Place a closed jump ring (A) with two roller beads (b) created in step 2 horizontally against the closed jump ring (A) with two roller beads (C) added in step 5, with one roller bead (C) to each side, as shown in figure 7.



FIGURE 7



- 7 Place and close an open jump ring (A) through both the closed jump ring (A) with two roller beads (C) added in step 5 and two new roller beads (C), pinning the closed jump ring (A) with two roller beads (B) from step 6 in place with one roller bead (B) to each side, as shown in figure 8.



FIGURE 8

- 8 Place a closed jump ring (A) with two roller beads (B) created in step 2 horizontally against the closed jump ring (A) with two roller beads (C) added in step 7, with one roller bead (C) to each side, as shown in figure 9.



FIGURE 9

- 9 Place and close an open jump ring (A) through both the closed jump ring (A) with two roller beads (C) added in step 7 and the loop of a French hook, pinning the closed jump ring (A) with two roller beads (B) from step 8 in place with one roller bead (B) to each side, as shown in figure 10.



FIGURE 10

Orbital Sunrise Earrings

Finished Size $\frac{3}{4}$ inch (1.9 cm)

MATERIALS

- 10 sterling silver jump rings, 18 gauge, $\frac{15}{64}$ -inch ID (A)
- 10 frosted red glass beads, size 6/0 (B)
- 2 surgical stainless steel French hooks (C)

INSTRUCTIONS

- 1 Open six of the jump rings (A), and close the other four jump rings (A).
- 2 Place and close an open jump ring (A) through five glass beads (B).
- 3 Place a closed jump ring (A) horizontally against the jump ring (A) with five glass beads (B) created in step 2.
- 4 Place and close an open jump ring (A) through the jump ring (A) with five glass beads (B) created in step 2, pinning the horizontal closed jump ring (A) from step 3 in place as shown in figure 11.



FIGURE 11

- 10 Repeat steps 2 through 9 exactly to create a second matched earring.

- 5 Place a closed jump ring (A) horizontally against the jump ring added in step 4.

- 6 Place and close an open jump ring (A) through both the jump ring added in step 4 and the loop of a French hook (C), pinning the horizontal closed jump ring (A) from step 5 in place, as shown in figure 12.



FIGURE 12

- 7 Repeat steps 2 through 6 exactly to create a second matched earring.



Stardust Earrings

Finished Size 1 1/4 inch (3.2 cm)

MATERIALS

- 14 gold-filled jump rings, 16 gauge, 9/32-inch ID (A)
- 12 seamless gold-filled beads, 4 mm (B)
- 2 round stardust beads, 6 mm (C)
- 2 14kt gold-filled French hooks

INSTRUCTIONS

- 1 Open all 14 jump rings (A).
- 2 One at a time, place and close three open jump rings (A) through four seamless beads (B) each.

- 3 Place and close an open jump ring (A) through a stardust bead (C).

- 4 Place a jump ring (A) with four seamless beads (B) created in step 2 horizontally against the jump ring (A) with the stardust bead (C) created in step 3, as shown in figure 13.



FIGURE 13

- 5 Place and close an open jump ring (A) through the jump ring (A) with the stardust bead (C) created in step 3, pinning the horizontal jump ring (A) with four seamless beads (B) from step 4 in place, with two seamless beads (B) to either side of the chain, as shown in figure 14.



FIGURE 14

- 6 Place a jump ring (A) with four seamless beads (B) created in step 2 horizontally against the jump ring (A) added in step 5.

- 7 Place and close an open jump ring (A) through the jump ring (A) added in step 5, pinning the horizontal jump ring (A) with four seamless beads (B) from step 6 in place, with two seamless beads (B) to either side of the chain.

- 8 Place a jump ring (A) with four seamless beads (B), created in step 2, horizontally against the jump ring (A) added in step 7.

- 9 Place and close an open jump ring (A) through both the jump ring (A) added in step 7 and the loop of a French hook, pinning the horizontal jump ring (A) with four seamless beads (B) from step 8 in place, with two seamless beads (B) to either side of the chain.

- 10 Repeat steps 2 through 9 exactly to create a second matched earring.





Nautilus Necklace



The one-of-a-kind focal bead in this necklace—created by a lampworking artist in Nova Scotia—makes it an absolute showstopper.

Finished Size Approximately 22 inches (55.9 cm) in circumference

MATERIALS

16-gauge sterling silver jump rings, as follows:

- 314 with an $1\frac{1}{64}$ -inch ID (A)
- 1 with a $\frac{9}{32}$ -inch ID (B)

526 spring hard sterling silver jump rings,
21 gauge, $\frac{3}{32}$ -inch ID (C)

21-gauge sterling silver jump rings, as follows:

- 20 with $\frac{1}{8}$ -inch ID (D)
- 20 with $\frac{9}{64}$ -inch ID (E)

10 sterling silver jump rings, 18 gauge,
 $\frac{5}{32}$ -inch ID (F)

3 green lustre glass roller beads, 6 mm (G)

4 green iris glass roller beads, 6 mm (H)

3 seamless sterling silver beads, 4 mm (I)

Large focal bead with a small hole size,
minimum 4.5 mm

Sterling silver infinity clasp, 13 x 7 mm



DESIGN TIP

Don't be afraid to go out and commission special focal beads of your own or track down focal bead substitutions; just make sure that your focal beads have at least a 4.5-mm hole. If not, you will have to use a bead reamer to clean/enlarge the hole to a point where you can fit a chain through.

INSTRUCTIONS

- 1 Open 160 of the jump rings (A), 322 of the jump rings (C), and all ten jump rings (F). Close the other 154 jump rings (A), the one jump ring (B), the 204 other jump rings (C), all 20 jump rings (D), and all 20 jump rings (E).
- 2 Place and close an open jump ring (F) through a roller bead (G).
- 3 Repeat step 2 a total of nine more times, placing and closing open jump rings (F) through each of the following: the remaining two glass roller beads (G), four glass roller beads (H), and three seamless silver beads (I).



4 Following the directions on page 24, create the 10 following Double Cable chains:

- One consisting of a total of 27 pairs of jump rings (C)
- One consisting of a total of 25 pairs of jump rings (C)
- One consisting of a total of 23 pairs of jump rings (C)
- One consisting of a total of 21 pairs of jump rings (C)
- One consisting of a total of 19 pairs of jump rings (C)
- One consisting of a total of 17 pairs of jump rings (C)
- One consisting of a total of 15 pairs of jump rings (C)
- One consisting of a total of 13 pairs of jump rings (C)
- One consisting of a total of 11 pairs of jump rings (C)
- One consisting of a total of nine pairs of jump rings (C)

5 One at a time, place and close two open jump rings (C) through the final pair of jump rings (C) from each of the 10 Double Cable chains created in step 4 and through two closed jump rings (D).

6 One at a time, place and close two open jump rings (C) through each of the pairs of closed jump rings (D) added to the end of each Double Cable chain in step 5 and through two closed jump rings (E).

- 7 One at a time, place and close two open jump rings (C) through each of the pairs of closed jump rings (E) added to the end of each Double Cable chain in step 6 and through one of the jump rings (F) with a bead, completed in step 3.



DESIGN TIP

From the longest to shortest Double Cable chain, the order of added beads is: (H) (G) (I) (G) (H) (I) (G) (H) (I) (H); however, you may use your own discretion for adding these beads.

- 8 One at a time, place and close two open jump rings (C) through each of the pairs of closed jump rings (C) from the end of each Double Cable chain and through the closed jump ring (B) to create a tassel of Double Cable chain. Note that you can attach the Double Cable chains to the closed jump ring (B) in order, from longest to shortest, if you wish, but this isn't necessary.

- 9 Following the directions on page 24, create a Double Cable chain that consists of approximately 13 pairs of jump rings (C). Note that it may be helpful to make this chain longer than it needs to be in order to feed it completely through the focal bead and then remove a small length of the Double Cable chain after it has been fed through the focal bead.

- 10 Place and close an open jump ring (A) through the pair of jump rings (C) from one end of the Double Cable chain created in step 9.

- 11 Feed the other end of the Double Cable chain completed in step 9 through one side of the focal bead, then through the closed jump ring (B) at the top of the chain tassel, then out through the other side of the focal bead, as shown in figure 1.



FIGURE 1



DESIGN TIP

You may find it helpful to tie the end of the Double Cable chain to a piece of string in order to feed it through the focal bead.

- 12 Place and close an open jump ring (A) through the pair of jump rings at the end of the Double Cable chain that has been fed through the focal bead, locking it in place.

Note that this chain should be as tight as possible, so it's perfectly all right to remove any extra jump ring (C) pairs from the end of the Double Cable chain. Again, attaching a string to the Double Cable chain can be very helpful for holding it in place during this kind of adjustment.



- 13 One at a time, place and close two open jump rings (A) through both the jump ring (A) from step 10 and two closed jump rings (A).
- 14 Fold the two closed jump rings (A) added in step 13 back, as in step 4 of the Byzantine pattern on page 30.
- 15 One at a time, place and close two open jump rings (A) through both the two closed jump rings (A) added in step 13 and two new closed jump rings (A), as shown in figure 2.



FIGURE 2

- 16 One at a time, place and close two open jump rings (A) through both the two closed jump rings (A) added in step 15 and two new closed jump rings (A).
- 17 Repeat step 16 a total of two more times, continuing the chain in the Double Cable style.
- 18 Fold the final two closed jump rings (A) back, as in step 4 of the Byzantine pattern.
- 19 Repeat steps 15 through 18 a total of eight more times, continuing the Half-Byzantine and Double Cable pattern.

- 20 One at a time, place and close two open jump rings (A) through both the final two closed jump rings (A) of the Half-Byzantine and Double Cable chain, which you folded back as the final repetition of step 18 during step 19, and two closed jump rings (A).
- 21 One at a time, place and close two open jump rings (A) through the two closed jump rings (A) added in step 20.
- 22 One at a time, place and close two open jump rings (A) through both the two jump rings (A) added in step 21 and the loop of a clasp.
- 23 Repeat steps 13 through 21, starting with the jump ring (A) added in step 12.
- 24 One at a time, place and close two open jump rings (A) through both the two closed jump rings (A) added during the final repetition of step 21 and two closed jump rings (A).

ALTERNATE STEPS 10 AND 11

If you do not have a hollow focal bead, simply attach the Double Cable chain directly to the jump ring (B) of the tassel and then feed it through a regular focal bead, as shown in figure 3. Step 12 then creates a single attachment point for both sides of the Half-Byzantine and Double Cable chain.



FIGURE 3



INDEX

Basic chain weaves	23-38
Byzantine Chain	30-33
Double Cable	24
Double Spiral	26-28
European 1 in 4	28-30
Persian Star	36-38
Rings of Saturn	33-36
Single Cable	23
Single Spiral	24-26
Bead reamer	20
Beads	15-18
adding to Single Spiral	26
cleaning	20-21
selecting	15
varieties of	16-18
Calipers	22
Illustration key	14
Jump rings	9-13
cleaning	10
closing	13, 21
keeping steady	22
making	21
measuring	22
opening	13
using pliers with	13
using with beads	15
varieties of	9-12
Measuring tape	22
Medical tape	22
Modeling clay and putty	22
O-rings	12
Pipe cleaners	21
Pliers	19
caring for	20
selecting	19
using	13, 19-20
Temporary markers	22
Tumblers	21

Jump Ring Suppliers by Project

SPIDERCHAIN JEWELRY

Early Frost Necklace
Circle Drop Chandeliers
Beaded Persian Star Necklace
Connection Quartet
Mermaid's Tail
Drops of Jupiter
Centipede Bracelet & Earrings
Peacock Earrings
Arrowhead Wrap
Golden Lady Earrings
Zigzag Bracelet
Cable Cross Bracelet & Earrings
Red Carpet Cable Set
Grape Leaf Earrings
Orbital Earring Collection
Nautilus Necklace

METAL DESIGNZ

Gypsy Cuff Earrings
Bejewelled Eyeglass Chain
Moroccan Double Spiral Bracelet
Shell Spiral Earrings
Dancing Bells Anklet
Chain Gang
Flower Mail Choker & Bracelet
Bronze Age Bolo Tie
Zipper Charms
Andromeda Necklace

Beaded Chain Mail Jewelry



FINE CHAIN MAIL ELEGANTLY
ENHANCED WITH FABULOUS BEADS

Chain mail jewelry is lovely in and of itself, but when you add beautiful beads, it becomes spectacular. Learn the fundamentals, an innovative technique for threading the beads onto chain mail, and eight weave patterns, ranging from time-honored classics to new originals. Then try your hand at 27 pretty projects, from simple to challenging, including a delicate anklet embellished with tiny bells, a spiral necklace decorated with glass beads that evoke the chilly splendor of a frosty day, and earrings shaped like inverted grape leaves adorned with dazzling garnets. These pieces are true showstoppers.



**LARK
BOOKS**

A Division of
Sterling Publishing Co., Inc.
New York / London

For more information on Lark Books,
visit our website at www.larkbooks.com.

ISBN 978-1-60059-220-1

5 2 4 9 5



9 781600 592201